Presocratic Philosophy

Essays in Honour of Alexander Mourelatos

Edited by
Victor Caston and
Daniel W. Graham

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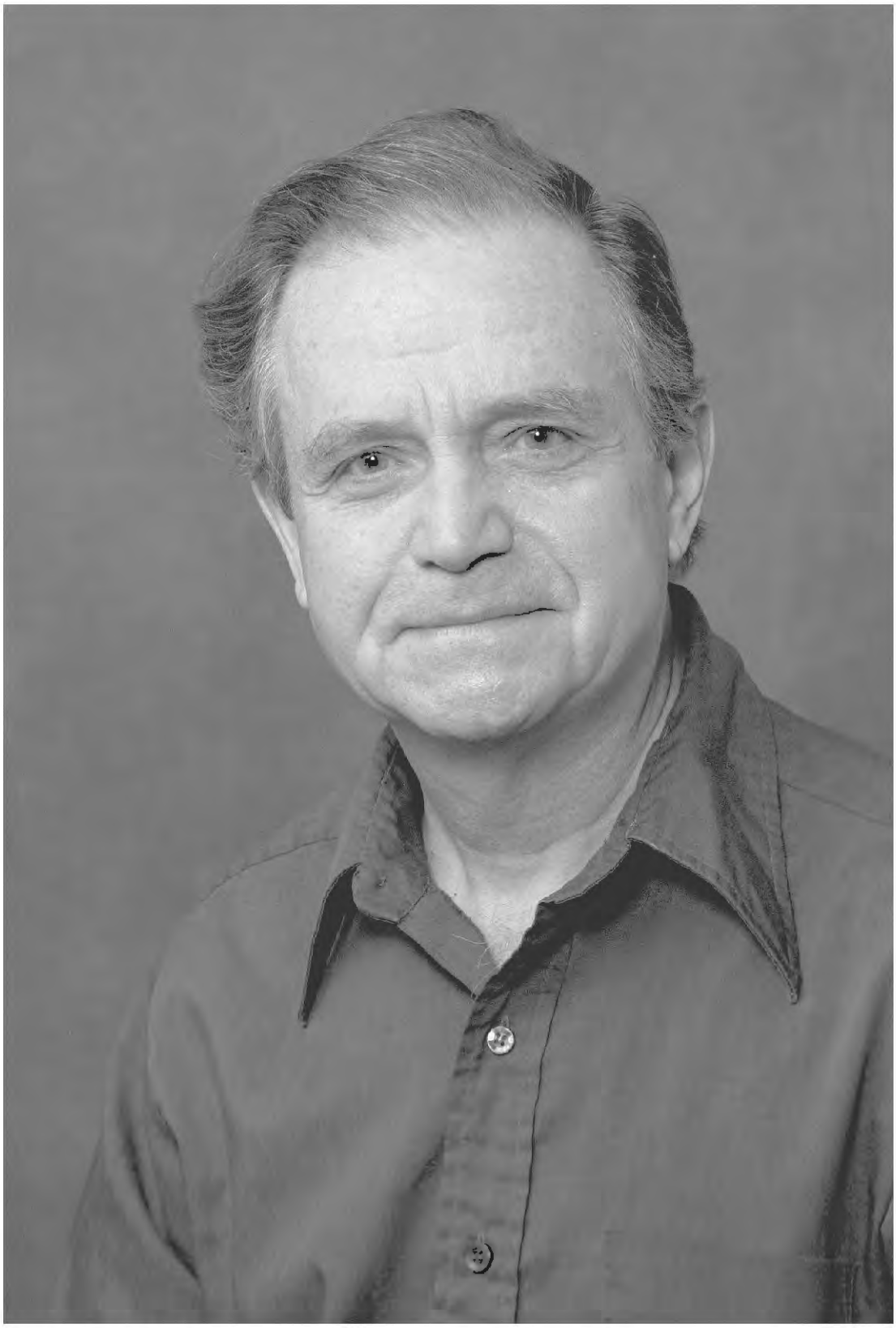

Alan Smith, Photography Services, The University of Texas at Austin.

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Introduction

The study of ancient Greek philosophy has long maintained a tradition of collaborative efforts, well before administrators found it fashionable to speak of 'interdisciplinarity.' Research in the area depends on advances across the full range of subjects it covers: classics and philosophy, most obviously, together with ancient history, the history of science and the history of ideas. This diversity is reflected in its interactions: a joint program in ancient philosophy requires not only the cooperative efforts of distinct departments, with their different interests and concerns, but an abundance of reading groups, works-in-progress sessions, and colloquia.

Such activity calls for a thorough-going elenctic examination of philosophical theses, and this is typically intense. But 'out of opposition comes the fairest harmony,' and at their best such associations are tempered by good humor and *philia*. Such a balance is hard both to achieve and to sustain, and it is rare to find an individual capable of orchestrating so many divergent interests and needs. Alexander P. D. Mourelatos is such an individual, and the Classics-Philosophy Joint Graduate Program in Ancient Philosophy which he founded at the University of Texas at Austin is a testimony to this ideal.

Alex was born in 1936 in Athens, Greece, the only child of a bank employee (father) and a musician (mother). Of the stories he used to recount of his childhood, two stand out as particularly auspicious. On a hot summer day in August 1944, in the waning, yet still quite brutal, days of the Nazi occupation of Greece, Alex remembers riding on the back seat of his father's bicycle, mercilessly urging his emaciated father to hurry on. The two of them had been delayed, after an air-raid by the Allies that had interrupted a beach outing and had forced them to take shelter. Alex's concern was that they not be late for the open air performance of Beethoven's *Fidelio*, in which the young Maria Kalogheropoulou (a. k. a. Maria Callas) was starring as Leonore. He claims not to have missed one of those fifteen or so performances. (The liberation theme of that opera was apparently lost on the occupation authorities, who had insisted that the company stage works by German composers. Fidelio was the Greeks' response.) The year before he left for America, he attended a summer school in England, where he was called into the headmistress' office for his (apparently mordant) impersonations of his English teachers. She warned him sternly, 'You must be careful with behavior like that, Alexander, or you will wind up in Texas!' The University and his many students can be grateful for her inspired suggestion.

In Greece, he attended Athens College, a ten-year American-sponsored school which combined all of secondary as well as the latter half of elementary education. In his teens, he also attended the Athens Conservatory, where he studied flute and music theory. Alexander Nehamas, who was just starting Athens College in the fourth grade as Alex was in his senior year, remembers him (not without irony) as a 'huge, towering figure,' serving as a school monitor with a whistle around his neck; and also as an expert musician, something unusual for middle-class Greeks of their time. His teachers at the Conservatory in fact wanted him to continue his study of the flute in France, but he elected instead to apply to universities in the United States. When Yale University offered him a full scholarship, he accepted and set about navigating through the lengthy (and, at that time, occasionally humiliating) process of obtaining a visa.

Though officially preparing for medical school, his interests quickly led him to major in philosophy; and when he graduated in 1958, he was offered a scholarship to continue on at Yale

as a graduate student in philosophy. Becoming an avid student of the newly-arrived Wilfrid Sellars, he chose to work on the early Wittgenstein, Strawson and Kant. It was this work, interestingly, that first led him to Parmenides and the study of Greek philosophy; for it was here, he believed, that the sources of 'transcendental arguments' were to be found. Sellars encouraged him to pursue this hunch seriously, which eventually resulted in his PhD dissertation, *The Philosophy of Parmenides* (1964).

It was at Yale that he met his former wife, Linda Jean Oppen. In their thirty-five years together, they worked as a team, their Austin home often being the site of gatherings, formal and informal of the Joint Program. His colleagues, students, and the many visitors in ancient philosophy who came through Texas and stayed in their home, continue to remember and to prize her warmth, keen wit, and generous hospitality.

Alex taught for two years as an Instructor at Yale. Then, in 1964/65, while on leave from Yale at the University of Wisconsin, Madison, Alex chose to accept an appointment at the University of Texas at Austin, in order to found a joint program in classics and philosophy, modeled on the program pioneered by Gregory Vlastos at Princeton University. The program has since grown tremendously, boasting five faculty members specializing in ancient philosophy, as well as numerous faculty with adjoining interests, with many of its students finding employment in leading universities. The two constituent departments of the Joint Program at UT Austin, Philosophy and Classics, cooperated from the outset, with warmth and enthusiasm, something due in no small part to Alex's vision and expert direction. The complex network of special courses, extracurricular activities (including the lively meetings of the Euthyphrones), and frequent visiting scholars from Europe and Australia as well as North America, has made the program in Austin strong and vibrant. In all of this, Alex's devotion to his students has been legendary. His students know that he has worked tirelessly to help them, not only during their stay in Austin, but in innumerable ways after they have left the nest.

Alex's career has been marked by numerous visiting appointments and awards, including fellowships from the National Endowment for the Humanities (1968 and 1982/83), the American Council of Learned Societies (1973/74), and the Guggenheim Foundation (1988/89). He was Junior Fellow at the Institute for Research in the Humanities at the University of Wisconsin, Madison (1964/65), where he worked with Friedrich Solmsen; and a Member at the Institute for Advanced Study, Princeton, NJ (1967/68), where he worked with Harold Cherniss, also attending, during the same period, seminars at Princeton University offered by Gregory Vlastos and David Furley. He has also been Junior Fellow at the Center for Hellenic Studies (1973/74); Visiting Fellow at the Australian National University (1978 and 1991); and Visiting Professor at Carleton College (1994) and at the University of Crete, Rethimno (1998, 2000, 2001). In 1994 he was awarded an honorary doctorate by the University of Athens, and in 1999 he was elected Corresponding Member of the Academy of Athens.

Alex's research interests range widely. He has published journal articles on a wide range of topics, from ancient metaphysics and philosophy of language to astronomy and meteorology (see the list of publications below, pp. xi–xv). He is best known for his work on the Presocratics. In his book length study, *The Route of Parmenides* (Yale UP, 1970), and several subsequent articles, he developed a distinctive interpretation of the philosophical poem of Parmenides of Elea, one that emphasizes, on the one hand, the continuity between the thought of Parmenides and that of his epic-poetic and Ionian predecessors and, on the other, Parmenides' decidedly critical and even 'ironic' stance toward these antecedents. The interpretation he developed is distinctive and represents one of the few alternatives to the still-prevailing majority view. On that view, Parmenides is out of step with the tradition of Ionian philosophy that immediately precedes him; his concern instead is with problems of reference and falsehood. Against this, Alex argued that Parmenides' poem is of a piece with this tradition, sharing its concern about the ultimate nature of things, about what things really *are* – it is focused, that is, on predicative uses of the verb "to be," rather than its existential or veridical uses (as the majority view has it).

His other writings cover a range of Presocratic themes more generally: on the 'naive metaphysics of things' and the distinction between appearance and reality; the principle that nothing comes from nothing; Gorgias' views on the function of language; the notion of emergence in the Pythagoreans, Atomists and Empedocles; and the development of the notion of form, from Democritus to Plato; not to mention his elegant anthology of essays on the Presocratics, *The Pre-Socratics: A Collection of Critical Essays* (Doubleday 1974; second edition, Princeton UP 1993). He is currently working on a monograph on the philosophy of Xenophanes.

Alex's writings are models of clarity, philosophical acuity, and graceful style. They stress the need for sensitivity to literary as well as logical nuance – of grammar, rhythm, sound and image, as well as philosophical argument and theoretical presupposition – one must take in the full resonance of a text, if one is to appreciate it properly. The tools of analytic philosophy are essential, but so too are those of science, history, philology, and literary criticism. His writings are never polemical or merely academic, and always convey the sense of wonder that Plato and Aristotle said was the source of philosophy. To many of us who were his students and colleagues, they constitute a paradigm of philosophical rigor and philological subtlety, meticulously developed and bristling with fresh insights. His reader goes away having encountered the texts with a new depth of understanding and heightened sensitivity. He teaches us to encounter the Greek philosophers, to use his own felicitous phrase, in a 'logos-textured world.'

The present volume grows out of a tribute to Alexander Mourelatos by his colleagues and former students, held at the 21st Annual Ancient Philosophy Workshop at the University of Texas at Austin in March 1998. Only with great difficulty was the nature of the meeting withheld from Alex, but with the collusion of his colleagues at the University of Texas at Austin, the surprise tribute was concealed until just before the meeting. Congratulatory notes poured in from around the world, and many more wished to attend than could actually be present. Contributors were invited to present papers on the Presocratics and Sophists, consistently Alex's favorite subject over the years. Because there has been a relative dearth of work on the Presocratics in recent years it was felt the conference would be not only appropriate, but timely for the field of ancient philosophy as well. Most of the papers below were presented at the workshop, but several have been submitted by admirers from abroad who were unable to attend.

Part 1 concentrates on Ionian philosophy. In 'Thales and the stars,' Stephen White examines the tradition concerning Thales' astronomy and finds reasons to consider him 'the founder of Greek astronomy,' who through careful observations made important contributions concerning the stars and the sun's cycle. In 'Greek law and the Presocratics,' Michael Gagarin examines the relation between Greek legal practices and the development of Presocratic thought. He argues that what is decisive is not the existence of automatic, religious process, or at the other extreme an assumption of equality among the parties, but the very notion of procedure, by which means disputes would be resolved rationally.

Part 2 is devoted to Heraclitus and above all Parmenides. Daniel Graham argues in 'Heraclitus and Parmenides' that there is philological evidence to support the old but controversial claim that Parmenides was reacting to Heraclitus, and philosophical advantages in accepting this influence. This is countered by 'Parmenidean Being/Heraclitean Fire,' in which Alexander Nehamas argues against Graham's claims for Heraclitus' priority, finding instead large areas of theoretical agreement between the two thinkers, and developing a constructive reading of the *Doxa* part of Parmenides' poem. James Hankinson examines Parmenides' poem from a metaphysical point of view in 'Parmenides and the metaphysics of changelessness.' He argues that Parmenides' position does not result from a mistake in modal logic or semantics, but is based on metaphysical arguments advanced later in the text. Charles Kahn returns to his interpretation of Parmenides in 'Parmenides and Plato,' finding common ground with Mourelatos in seeing the verb 'to be' in Greek as essentially predicative, and the locution '*X* is' as always in principle open to the addition of a predicate *F*, as we can see by Plato's treatment of the verb.

Scott Austin's chapter 'Parmenides, double negation and dialectic' explores the curious fact that Parmenides, who rejects not-being in some sense, depends heavily on negative statements in his argument; indeed negative expressions are imbedded in the argument. Herbert Granger's 'The cosmology of mortals' renews and defends a traditional interpretation of Parmenides' metaphysics and his cosmology: Parmenides' goddess can develop a cosmology only by allowing a place for non-being, which the argument has already ruled to be impossible; therefore the *Doxa* portion of the poem cannot be regarded as anything more than deceptive.

Part 3 turns to the so-called 'pluralists' who come after Parmenides. In 'Anaxagoras, Plato and the naming of parts,' David Furley explores ways in which the theory of Anaxagoras anticipates Plato's theory of Forms. André Laks offers a close textual examination, in 'Reading the readings,' of some of the more peculiar features of the fragments of Empedocles recently discovered in Strasburg, in particular the significance of the use of the first-person plural in a number of lines. In 'The metaphysics of physics' Patricia Curd examines the metaphysics underlying pluralist theories. While adhering to Eleatic principles, Empedocles and Anaxagoras both appeal to a similar mechanism to account for phenomena in terms of 'mixture.' The remaining chapters in this part each consider a different aspect of Democritus' philosophy. In 'Democritus and Xeniades,' Jacques Brunschwig examines the views of Xeniades of Corinth – a rather dark figure who claimed that every representation is false and that everything comes to be from non-being – and their relation to Democritus' theory, especially his epistemology. Julia Annas argues in 'Democritus and Eudaimonism' that Democritus was not a mere dispenser of moral platitudes, but an ethical theorist, who adopts a recognizably eudaimonist position of philosophical interest. Sylvia Berryman turns to physical theories in 'Democritus and the explanatory power of the void,' where she examines the void's role in the explanation of motion and Aristotle's concerns as to whether it could serve as an efficient cause.

In Part 4, we turn to the sophists, thinkers who have been artificially separated from Presocratic philosophers in modern treatments, thus giving the false impression that 'presocratic' philosophers were primarily interested in metaphysics and cosmology alone, and not more human concerns about society, thought, and language. In 'Natural justice?' Paul Woodruff asks whether there is a theory of natural justice before Plato and argues that, despite similar sounding themes, these earlier thinkers at best appealed to a notion of universal justice, which depends on both nature and culture. Victor Caston offers a close reading of the second part of Gorgias' *On Not Being* in 'Gorgias on thought and its objects.' He rejects both the view that Gorgias endorsed the nihilistic conclusions of the treatise and the view that it is nothing more than a spoof of Eleatic philosophy, arguing instead that it offers a serious philosophical critique of rival views about the nature of thought. In 'To tell the truth: *Dissoi Logoi* 4 and Aristotle's responses,' Owen Goldin turns to this later sophistic treatise, examining a series of arguments that lay claim to being the first philosophical reflections on indexical terms and, considers later reactions to it. Aristotle in particular struggles to explain such terms in a way that will preserve the law of non-contradiction. In 'Archytas and the sophists,' Carl Huffman examines the tradition concerning a debate between the sophist Polyarchus and Archytas the Pythagorean, one that exhibits interesting parallels to Socrates' debate with Thrasymachus in *Republic* I. Huffman argues that the tradition nevertheless preserves valuable and independent information about Archytas and his concept of political equality.

Parts 5 and 6 concern a range of adjoining topics, involving the transmission of testimony on Presocratic philosophers, the later development of traditions they initiated, and subsequent reactions to their leading ideas. In 'Aëtius, Aristotle and others on coming to be and passing away,' Jaap Mansfeld examines in detail the way in which later doxographical sources depend upon Aristotelian discussions of philosophers such as Empedocles and Anaxagoras, and the ways in which they differ and diverge. Paul Thom considers a long running theme in Greek philosophy, regarding the extent of what is, in 'On the pervasiveness of being.' Parmenides claims that the class of what-is is universal and consequently that the class of what-is-not null,

while Gorgias that the former is null, the latter universal. Plato in turn argues that both what-is and what-is-not are universal, while Aristotle argues that neither is: some things are, and others are not. In 'Three philosophers look at the stars,' Sarah Broadie looks at the way two Presocratic concerns – about the nature of the heavens and the search for eternal first principles – are intertwined in Aristotle and his differences with both Plato and Theophrastus. William Prior argues, in 'Protagoras' Great Speech and Plato's defense of Athenian democracy,' that the Great Speech in Plato's *Protagoras* is not (the historical) Protagoras' own, but an imaginative reconstruction on Plato's part: it is meant only to capture the essence of various sophistic positions, in a way that deserves to be taken seriously. In particular, it shows that Plato recognized some value in Athenian democracy and in a nonphilosophical way of life, and so that he needed stronger arguments if he was to defend his philosophical and political ideals.

A List of A. P. D. Mourelatos' Publications

1965

'Heraclitus fr. 114,' *American Journal of Philology*, **86**, 258–66.
'*φράζω* and its derivatives in Parmenides,' *Classical Philology*, **60**, 261–2.
'The real, appearances, and human error in early Greek philosophy,' *Review of Metaphysics*, **19**, 346–65.

1967

'Aristotle's "powers" and modern empiricism,' *Ratio*, **9**, 97–104. (Appeared simultaneously as 'Die 'Kräfte' des Aristoteles und der moderne Empirismus' in the German language edition of *Ratio*, **9**, 93–9.)
'Jakob Friedrich Fries,' in P. Edwards (ed.), *Encyclopedia of Philosophy*, New York: The Macmillan Company, vol. 3, pp. 252–5.
Review of Leonardo Tarán, *Parmenides: A Text with Translation, Commentary, and Critical Essays*, *The Philosophical Review*, **76**, 526–9.
Review of H. C. Baldry, *The Unity of Mankind in Greek Thought, American Journal of Philology*, **88**, 488–90.

1968

Review of Renford Bambrough (ed.), *New Essays on Plato and Aristotle*, *The Philosophical Review*, **77**, 512–16.

1969

'Comments on "the thesis of Parmenides,"' *Review of Metaphysics*, **22**, 735–44.
Review of John Mansley Robinson, *An Introduction to Early Greek Philosophy*, *Journal of the History of Philosophy*, **7**, 459–62.

1970

The Route of Parmenides: A Study of Word, Image, and Argument in the Fragments, New Haven and London: Yale University Press.

1971

'Mind's commitment to the real (Parmenides B 8.34–41),' in John P. Anton with George L. Kustas (eds.), *Essays in Ancient Greek Philosophy*, New York: State University of New York Press, pp. 59–80. (A shorter, earlier version of Ch. 7 of *The Route of Parmenides*.)
'Empedocles,' in Charles C. Gillispie (ed.), *Dictionary of Scientific Biography*, New York: Charles Scribner's Sons, vol. 4, pp. 367–9.
Review of Theo Gerard Sinnige, *Matter and Infinity in the Pre-Socratic Schools and Plato*, *Gnomon*, **43**, 82–4.

1972

'Eleatic school,' 'Empedocles,' and 'Pythagoras and Pythagoreanism,' in *Encyclopedia Americana*, New York: The Americana Corporation, vol. 10, p. 115; vol. 10, p. 311; and vol. 23, pp. 45–6.

1973

Exegesis and Argument: Studies in Greek Philosophy Presented to Gregory Vlastos, ed. by E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty (= *Phronesis*, suppl. vol. 1), Assen: Royal van Gorcum, Ltd.
'Heraclitus, Parmenides, and the naïve metaphysics of things,' in *Exegesis and Argument* (above), pp. 16–48.

1974

The Pre-Socratics: A Collection of Critical Essays, ed. by A. P. D. Mourelatos, Garden City: Doubleday and Company.
'The deceptive words of Parmenides' "Doxa"' in *The Pre-Socratics'*, pp. 312–49. (A condensed version of ch. 9 of *The Route of Parmenides*.)

1975

'Determinacy and indeterminacy, being and non-being in the fragments of Parmenides,' *Lampas: tijdschrift voor nederlandse classici*, **8**, 334–43.
Review of Edward Hussey, *The Presocratics*, *Archives internationales d'histoire des sciences*, **25**, 147–8.

1976

'Determinacy and indeterminacy, being and non-being in the fragments of Parmenides,' *Canadian Journal of Philosophy*, suppl. vol. **2**, 45–60. (Revised version.)

1978

'Events, processes, and states,' *Linguistics and Philosophy*, **2**, 415–34.

1979

'Some alternatives in interpreting Parmenides,' *Monist*, **62**, 3–14.

'"Nothing" as "not-being": some literary contexts that bear on Plato,' in G. W. Bowersock, W. Burkert, and M. C. J. Putnam (eds.), *Arktouros: Hellenic Studies Presented to Bernard M. W. Knox*, Berlin: Walter de Gruyter, pp. 319–29.
Review of Jörg Jantzen, *Parmenides zum Verhältnis von Sprache und Wirklichkeit*, *American Journal of Philology*, **100**, 342–5.

1980

'Plato's "real astronomy": *Republic* 527d–531d,' in John P. Anton (ed.), *Science and the Sciences in Plato*, Delmar, New York: Caravan Books, pp. 33–73.

1981

'Astronomy and kinematics in Plato's project of rationalist explanation,' *Studies in History and Philosophy of Science*, **12**, 1–32.
'Pre-Socratic origins of the principle that there are no origins from nothing,' *The Journal of Philosophy*, **78**, 649–65.
'Saving the Presocratics,' review of Jonathan Barnes, *The Presocratic Philosophers*, *Philosophical Books*, **22**, 65–77.
Reprint of 'Events, processes, and states,' in P. J. Tedeschi and A. Zaenen (eds.), *Tense and Aspect* (= *Syntax and Semantics*, **14**), New York: Academic Press, 1981, pp. 191–212.
'*Ηράκλειτος, Παρμενίδης και η απλοϊκή μεταφυσική των πραγμάτων*,' *Δευκαλίων*, issue 33/34, 57–75. (Modern Greek translation of 'Heraclitus, Parmenides, and the naïve metaphysics of things,' 1973.)

1983

Reprint of '"Nothing" as "not-being": some literary contexts that bear on Plato,' in John P. Anton and Anthony Preus (eds.), *Essays in Ancient Greek Philosophy*, vol. 2, Albany: State University of New York Press, pp. 59–69.

1984

'Aristotle's rationalist account of qualitative interaction,' *Phronesis*, **29**, 1–16.
'*Ο Γοργίας για τη λειτουργία της γλώσσας*,' [Gorgias the function of language] in *Η αρχαία σοφιστική*: *The Sophistic Movement*, Papers read at the First International Symposium on the Sophistic Movement organized by the Greek Philosophical Society, 27–29 Sept. 1982, Athens: Athenian Library of Philosophy, pp. 223–31.
'*Δημόκριτος: φιλόσοφος της μορφής*' [Democritus: Philosopher of Form], in *Proceedings of the First International Congress on Democritus*, Xanthi: International Democritean Foundation, pp. 109–19.

1985

'Gorgias on the function of language,' in L. Montoneri and F. Romano (eds.), *Gorgia e la Sofistica: Atti del convegno internazionale* (Lentini-Catania, 12–15 December 1983) [= *Siculorum Gymnasium*, n. s., **38**, nn. 1–2], pp. 607–38.
'Quality, structure, and emergence in later pre-Socratic philosophy,' *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, **2**, 127–94.

1987

‘Gorgias on the function of language,’ *Philosophical Topics*, **15**, 135–70. (Revised version.)
‘Knowledge, speculation, and myth in Plato’s accounts of the order and the distances of celestial bodies,’ in B. P. Hendley (ed.), *Plato, Time, and Education: Essays in Honor of Robert S. Brumbaugh*, Albany: State University of New York Press, pp. 83–106.
‘*Η ανακάλυψη της μορφής στην πρώϊμη ελληνική φιλοσοφία*’ [The Discovery of Form in Early Greek Philosophy],’ in *Παλίμψηστον*, **5**, 93–114.

1989

‘“*X* is really *Y*”: Ionian origins of a thought pattern,’ in K. J. Boudouris (ed.), *Ionian Philosophy*, Athens: International Association for Greek Philosophy, pp. 280–90. (On Xenophanes’ astro-meteorology.)
Review of Catherine Osborne, *Rethinking Early Greek Philosophy: Hippolytus of Rome and the Presocratics*, *Ancient Philosophy*, **9**, 111–17.

1990

Modern Greek translation of ‘“*X* is really *Y*”: Ionian origins of a thought pattern,’ in K. J. Boudouris (ed.), *Ιωνική φιλοσοφία*, Athens: International Association for Greek Philosophy, pp. 127–39.
‘The Early Greek Cosmologists,’ review of David Furley, *The Greek Cosmologists, Vol. 1, The Formation of the Atomic Theory and its Earliest Critics*, *Philosophische Rundschau*, **37**, 80–88.

1991

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1993

The Pre-Socratics: A Collection of Critical Essays (above, 1973), second printing, with revised introduction and bibliography, Princeton: Princeton University Press.
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‘Gregory Vlastos,’ *Gnomon*, **65**, 377–82.

1995

[Co-authored with Sylvia Berryman and Ravi K. Sharma] ‘Two annotated bibliographies on the Presocratics: a critique and user’s guide,’ *Ancient Philosophy*, **15**, 471–94. (Reprinted in translation as ‘Appendice: Deux bibliographies annotées sur les Présocratiques: une critique et un guide de l’usager,’ in L. Paquet and Y. Lafrance (eds.), *Les Présocratiques, Bibliographie Analytique (1450–1879)*, Montréal: Bellarmin, pp. 285–313.)
‘Presocratics,’ in J. Kim and E. Sosa (eds.), *A Companion to Metaphysics*, Oxford: Blackwell Publishers, pp. 412–16.
‘Abderites,’ ‘Eleatic school,’ ‘Homoeomerous,’ ‘Hylozoism,’ ‘Ionian philosophy,’ ‘Melissus of Samos,’ ‘Orphism,’ ‘Parmenides of Elea,’ ‘Xenophanes of Colophon,’ in Robert Audi (ed.),

The Cambridge Dictionary of Philosophy, Cambridge: Cambridge University Press, pp. 1, 220, 336–7, 352, 383, 479, 552, 561, 862.

1996

Reprint of 'Events, processes, and states,' in R. Casati and A. C. Varzi (eds.), *Events* (= The International Research Library of Philosophy, **15**), Aldershot, Hampshire: Dartmouth Publishing, pp. 457–76.

1997

'Parmenides' in D. J. Zeyl (ed.), *The Encyclopedia of Classical Philosophy*, Westport: Greenwood Press, pp. 363–9.

1998

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1
THE MILESIANS

Chapter 1

Thales and the Stars

Stephen White

Thales, nearly all agree, was the first Presocratic. But many have been reluctant to call him the first philosopher. Aristotle famously declares him a 'founder of *this type* of philosophy' (*τῆς τοιαύτης ἀρχηγὸς φιλοσοφίας*, *Metaph.* I.3 983b20–1: 11 A 12 DK). The qualification is crucial, limiting Aristotle's claim to theories about the material substrate in natural change. What he says Thales founded is thus more akin to science than to what most today call philosophy.[1] Aristotle's verdict has fostered another misconception, though not, I think, for tendentious reasons as some have alleged.[2] Rather, the distortion stems mainly from a modern tendency to elevate Aristotle's carefully circumscribed assessment into a summary verdict on Thales' overall significance. As a result, we tend to emphasize the speculative side of his thought and to neglect the observational basis for the insights ascribed to him in our earliest sources, including Herodotus, Plato, and Aristotle and his colleagues. Thales was clearly a very versatile thinker, a pioneer in the very pragmatic realms of commerce (A 10) and politics, both regional (A 4) and international (D. L. 1.25, cf. Hdt. 1.141), as well as engineering (A 6), surveying (A 21, cf. D.L. 1.27), and navigation (A 20). In fact, he was best known in antiquity for his observations of the sky. The famous story in Herodotus 1.74 (cf. A 4), that he foretold a solar eclipse, may be apocryphal, as some have argued.[3] But there is solid evidence for other important insights based less on speculative imagination than careful observation and computation. Thales, it seems, pioneered the quantitative treatment of empirical data. Call him a philosopher or not, he fully deserves credit as the founder of Greek astronomy.

1 Sources

A major obstacle confronting any attempt to recover Thales' thought is the total absence of primary texts. In his case, this is probably inevitable. Thales lived in a transitional period when writing, which had only recently returned to Greece, was reserved almost exclusively for verse, even in inscriptions. Some sources recognized this. 'According to some,' reports Diognenes Laertius (1.23), 'he left no written work [*σύγγραμμα*]'; and written work is securely attested first for Anaximander and Pherecydes about a generation later. Some ascribed a collection of verse called 'Nautical Astrology' to Thales (11 B 1; cf. *ἐν ἔπεσι*, *Suda*: A 2); and some claimed he wrote about the solstice and equinox (D. L. 1.23). But others assigned the verses to an

[1] Cf. Mansfeld, 1987. Panchenko, 1993, arguing forcefully for a broader view, credits Thales with proposing 'the first theoretical postulate in the history of natural science (all things are modifications of water)' and thereby also 'the first general principle in the history of philosophy' (p. 398).

[2] Most notably Cherniss, 1935, esp. pp. xii and 218; cf. the trenchant reply by Guthrie, 1957.

[3] Most notably Neugebauer, 1957, pp. 141–3. But even if Thales had no systematic or exact method of prediction, he may have succeeded by more than chance; for an intriguing scenario based on a crude use of lunation cycles, see Panchenko, 1994. No less than Aristarchus accepted that Thales attributed eclipses to lunar interposition; see Lebedev, 1990.

otherwise unknown Phokos of Samos (D. L. 1.23), and the safest course is not to trust either report.[4] Most likely, even if Thales did record his ideas, nothing much survived very long. But the absence of texts, while inevitably obscuring the nature and basis of his ideas (cf. Aristotle's tentative reasons for Thales' views about water: A 12), does not invalidate all our evidence. At least one person who knew him directly and was deeply interested in his ideas – namely, Anaximander – did write something down. And at least some of *his* work did survive long enough to be studied in the Lyceum, as we know from quotations by Aristotle (*Ph.* III.4: 12 A 15 and B 3) and Theophrastus (Simpl. *In Ph.* 24.13–21: 12 A 9 and B 1). If Anaximander or other near contemporaries did record some of Thales' views, as many scholars conjecture, then this probably also gave Aristotle and his colleagues a credible basis for assessing at least some of Thales' work.[5] The challenge, then, is to find material that Anaximander or his contemporaries had reason to report. My proposal, in brief, is that the fundamental concept of periodicity, which Anaximander invokes under the title of 'the ordinance of time' (12 B 1), underlies some revolutionary advances in astronomy made by Thales. But first, a few more words about our sources.

D. R. Dicks, in a very influential paper now forty years old, divides our sources into two groups. Those active before 320 BCE (by which he means Herodotus, Plato, and Aristotle) he considers reliable; all others he rejects.[6] But his division, while not wholly arbitrary, is highly questionable. In particular, it eliminates everything derived from Aristotle's two most astute colleagues or 'pupils' (as Dicks styles them), Theophrastus and Eudemus, on the assumption that they had too little information about Thales to offer anything but 'rationalization' and 'invention' based on 'hearsay.' Dicks thus eliminates nearly all our evidence for Thales' astronomy, since he follows the scholarly consensus that most of it stems from Eudemus' *Astronomical Research* (so to render his Ἀστρολογικὴ ἱστορία: frr. 143–9 Wehrli). There is no reason to doubt Eudemus' influence. Much if not all later testimony for Thales' mathematics and astronomy depends on his pioneering work: some, from Callimachus (A 3) in the next century to Proclus (A 11, A 20) seven centuries later, probably directly; others, such as Theon (A 17) and probably Diogenes Laertius (A 1) and Pliny (A 18) as well, only indirectly. His reliability, however, deserves defense. For if Eudemus is trustworthy, then at least some of what we find in later reports will be so too.

Eudemus was evidently the first to produce a systematic study of early astronomy, and he did the same for geometry (frr. 133–41) and arithmetic (fr. 142), and even cosmogony (fr. 150). His work on early astronomy, which was apparently both methodical and comprehensive (filling six books or rolls: D. L. 5.50), remained the primary authority throughout antiquity.[7] The focus and scope of his study thus make him at least as reliable on this subject as Aristotle and Plato, and probably more so. More to the point, he presumably had access to at least as

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[4] Simpl. *In Ph.* 23.29–33 (B 1), on the authority of Theophrastus (fr. 225 FHSG), mentions Thales' 'inquiry' (ἱστορία) but adds that 'he is said to have left nothing in writing except the so-called "Nautical Astrology"'; Plut. *Pyth. Or.* 18 402e also registers doubts about its authorship. Their reasonable caution (Diels, on B 1, labels ascription to Phokos 'gewiss glaubwürdiger') contrasts with Lobon's ascription to Thales of 200 hexameters (D. L. 1.34), which scholars now dismiss; cf. *SH* frr. 504–26, esp. fr. 521.

[5] Tannery, 1930, p. 92 n. 1, proposes Anaximander as a written source; cf. M. West, 1963, pp.175–6. M. West, 1971, p. 212, suggests Anaximenes. Classen, 1965, p. 937, mentions both candidates and adds Hecataeus and Xenophanes; cf. Schofield, 1997, pp. 69, 80 n. 10. Lebedev, 1990, pp. 80–3, suspects Democritus. See further §4 below.

[6] Dicks, 1959; he relies on this critique in Dicks, 1966 (see n. 10 and n. 21) and Dicks, 1970 (see p. 41, though Aristotle's 'immediate pupils' count as early sources on p. 42).

[7] The title in D.L.'s catalogue of Theophrastus' works almost certainly refers to Eudemus' work; see White, 2001, pp. 15–17.

much evidence as Aristotle and others in the Lyceum, and his project must have obliged him to study this evidence especially closely. He probably began and may well have completed his research within Aristotle's lifetime.[8] There are even signs that, contrary to the chronology assumed by Dicks, both Aristotle and Theophrastus used his work.[9] Eudemus also appears to have handled his evidence critically and judiciously. In his study of early geometry, for example, he was alert to changes in diction. Thales, he observed, called angles 'similar'; only later were they called 'equal' (A 20); and he makes similar observations about Pythagorean terminology (fr. 137) and Plato's (fr. 31).[10] He was also attentive to advances in rigor and precision. In at least one case, he ascribed to Thales only the discovery and not the proof of a basic theorem (fr. 135: A 20); and he allowed that Thales 'treated some points more generally, others more observationally' (*τοῖς μὲν καθολικώτερον ἐπιβάλλων, τοῖς δὲ αἰσθητικώτερον*, fr. 133: A 11).[11] Similar attention to progress is evident in the work on astronomy, where Eudemus credited Anaximander with the first estimates of the earth's distance from the sun and moon (cf. 12 A 18–22), but Pythagoreans later with determining the order of the planets (fr. 146).[12] Eudemus also used sound historical judgment, I shall argue, in ascribing to Thales exactly the kind of innovations that Dicks singles out as credible: arithmetical measurements of periodic temporal intervals.[13]

Few have ever doubted that Thales was a very innovative thinker. The bone of contention has always been what exactly was new: his questions, his answers, his methods, or what? The view most prevalent today is that he and his fellow Milesians were the first to envision the entire world or cosmos as a systematic structure of familiar geometric bodies. There is very little in our sources, however, about what if any cosmic model Thales proposed. All that Aristotle and his colleagues ascribe to him is the idea that the earth rests on water, 'floating like wood' (*Cael.* II.13 294a28–32: 11 A 14).[14] So simple a picture is a credible antecedent to Anaximander's proposal that the earth rests at the center of the cosmos due to some sort of equipose (12 A 26; cf. A11), which offers a tidy solution to what Aristotle (294a32–34) – though perhaps not Thales – considered the obvious retort, that the water would need to be supported by something

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[8] The latest work that Eudemus is reported to have discussed is Callippus' celestial system (Simpl. *In Cael.* 497.15–24: fr. 149 Wehrli; cf. frr. 146, 148), which was worked out in time for Aristotle to amend it (see *Metaph.* XII.8), hence probably by 330.

[9] Aristotle's brief discussion of planetary motions in *De Caelo* II.10 refers to 'works on astronomy' for details (291a31), and Simpl. *ad loc.* cites Eudemus (fr. 146). For Theophrastus, see 11 B1 and n. 4 above.

[10] Proclus does not name Eudemus here (*In Eucl.* 250.20–251.2), and the passage is not included as a fragment by Wehrli, 1955, though he does suspect it derives from Eudemus (p. 115). Proclus cites Eudemus by name six times (frr. 134–8 and 30), twice for information about Thales (frr. 134–5), and he clearly depends on Eudemus (probably directly) for most of his information about early geometry (cf. fr. 133). On Eudemus' terminology, cf. Knorr, 1986, pp. 26, 32, 38.

[11] The assessment, if not the exact wording, is probably Eudemus' own. Simpl. *In Ph.* 60–9, quoting Eudemus at length on attempts by Antiphon and Hippocrates of Chios to 'square the circle' (fr. 140, cf. 139), shows both his command of geometry and his sensitivity to standards of proof; cf. Knorr, 1986, pp. 24–39.

[12] His account of early Greek study of the ecliptic and zodiac (fr. 145: Oinopides 41 A 7 DK; cf. Anaximander 12 A 5 and A 22) is also vindicated by Panchenko, 1999.

[13] Advocating comparative study of contemporary practice elsewhere, Dicks, 1959, pp. 306–7, points out that 'in both Egyptian and Babylonian geometry the treatment is essentially arithmetical'; and Dicks, 1966, p. 39, argues that 'the real impetus towards the study of the heavens' in archaic Greece was 'to tell the time'; cf. Dicks, 1970, pp. 60–1, Goldstein and Bowen, 1983.

[14] Cf. A 12, A 13, and A 15. Aristotle's 'said' (*εἰπεῖν*, 294a29: A 14) and 'declared' (*ἀπεφαίνετο* or *ἀπεφήνατο*, 983b22: A 12) may refer to either writing or oral tradition; and his report may be only an inference from the view that Thales considered water the basic material principle (note *διό* in both *Metaph.* 983b21: A 12 and Theophr. fr. 225 FHSG: A 13).

else. But in the absence of any reliable report of further details, it is unsafe to assume that Thales proposed any more elaborate cosmic model.[15]

If evidence for a cosmic model is tenuous, there is solid evidence that Thales tried for the first time to quantify some celestial motions systematically. In particular, he made the first recorded attempt to correlate the solar and stellar cycles exactly. This step, which is easy to overlook now that we take it for granted, had momentous consequences because it supplied the empirical basis necessary for any realistic model of regular motion. Thales' contribution to astronomy is thus both simpler and more profound than the quaint ideas highlighted in many modern accounts. It is simpler because it employs only basic arithmetic and rests only on the hypothesis that the movements of both sun and stars are periodic and hence regularly correlated. Yet its impact was profound, because it assigned numerical values to observed regularities, which then revealed both further patterns and puzzling irregularities. Contrary to Thales' modern reputation for bold speculation, there is no sign that he ventured any explanations here. Yet there is good evidence that the basis for his claims was solidly empirical: careful observation and systematic quantitative treatment of the resulting data. In so doing Thales initiated the scientific study of the heavens.

2 Thales *Astronomos*

Thales, as I remarked at the outset, was best known in antiquity as an astronomer. More precisely, earlier sources tend to associate him with *astronomia*, whereas later sources typically refer to *astrologia*. The difference is significant. Whereas *astrologia* normally implies some use of mathematical models, *astronomia* emphasizes observation; and in light of its etymological ties to herdsmen tending and watching their flocks, *astronomia* may be loosely translated as 'stargazing.'[16] This is the term used by Aristophanes for the studies of the 'Thinkery' in *Clouds* (194, 201), by Plato for the traditional astronomy he proposes to reform in *Republic* 7 (527d-30c),[17] and by *De Signis* 1 for early observers of the sun and stars.[18] It is also the term Plato uses to record a famous joke.

> Just so, Theodorus, when Thales was stargazing [ἀστρονομοῦντα] and looking upward, and fell into a well, a witty Thracian maid reportedly ridiculed him for being eager to know what's in heaven but failing to notice what's behind him at his feet. [*Theaet.* 174a: A 9][19]

Plato recounts this anecdote to illustrate popular disdain for philosophers, and at first glance, it seems to offer nothing more. But a closer look is more revealing. Thales is ridiculed not for

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[15] Reports that Thales envisioned the cosmos as spherical (Aet. 2.12: A 13c; cf. Cic. *Rep*. 1.22) contradict reliable testimony that sphericity was proposed only later. On the other hand, a report that 'the followers of Thales say the earth is in the middle' (Aet. 3.11: A 15) is credible since it specifies no shape: if 'earth' refers to a landmass instead of a planetary body, the claim may be not that 'Earth is at the center' of the cosmos but only that 'the land is in the middle' of the sea, as Teos is a μέσον in Ionia in Hdt. 1.170 (A 4; cf. Homeric Okeanos encircling mortal realms); and even the former interpretation suits a flat earth like Hesiod's, which lies exactly midway between Ouranos and Tartaros, ten 'anvil-days' in either direction (*Theog*. 720–5).

[16] Tannery, 1893, pp. 1–25, in a chapter entitled 'Ce que les Hellènes ont appelé Astronomie', associates the term with grouping or charting stars in constellations (ἄστρα).

[17] Cf. Eryximachus in *Smp.* (188b) and his teacher Hippias in *Prt.* (315c; cf. 318e, *Hp. Ma.* 285b).

[18] *De Signis*, though wrongly ascribed to Theophrastus, probably reflects his work; see Cronin, 1992.

[19] Tannery, 1893, p. 11, glosses ἀστρονομοῦντα here as 'inspecter les astres.' Dicks, 1959, pp. 297–8, considers this the sole exception to the purely practical reputation he reconstructs for Thales from his preferred sources; but he neglects evidence about the solstices, to be discussed in §3 below.

being lost in thought, but for watching the sky too closely. What the Thracian servant mocks, in short, is not abstract speculation but attentive observation; the joke is simply that Thales is so interested in phenomena far above him that he ignores his immediate surroundings to the detriment of his own welfare. Accordingly, Plato's Socrates describes him as 'stargazing.'

Similar attention to the celestial pageant is reported by Callimachus, a famously learned poet who played a leading role in organizing the holdings of the Alexandrian library in the first half of the third century. This massive project owed much to the Lyceum and its scholars, and one of the fields Callimachus handled was philosophy.[20] The impact of his reading is evident in much of his poetry, including an elaborate retelling of how Thales was deemed the wisest of the wise (*Iamb* 1: fr. 191). This poem, of which less than half the original 130 or more lines survive on papyrus, depicts Thales drawing figures on the ground beside the temple of Apollo at Didyma, just south of Miletus. But Callimachus introduces Thales by singling out an astronomical discovery (A 3a). The two relevant lines are quoted by Diogenes Laertius.

> *καὶ τῆς Ἁμάξης ἐλέγετο σταθμήσασθαι*
> *τοὺς ἀστερίσκους, ᾗ πλέουσι Φοίνικες.*
>
> and he was said to have measured out the little stars
> of the Wagon, by which Phoenicians sail. [D. L. 1.23: Call. fr. 191.54–5]

The following lines, which allude to scholarly debates about what discoveries in geometry should be ascribed to Thales and what to Pythagoras, confirm what the poet's background suggests, that Callimachus here probably depends on Eudemus' work.[21] The Wagon Thales reportedly 'measured out' is the constellation better known today as Ursa Minor or the Little Dipper. Callimachus, a highly allusive poet, leaves the significance of this step unexplained. But it is made quite clear by his contemporary, Aratus, whose *Phainomena* made Eudoxus' systematic observations more accessible and memorable by rendering them in elegant Hesiodic hexameters (cf. Call. *Epigr*. 27). The two Wagons or Bears (Major and Minor) are the very first constellations Aratus describes, because they surround the celestial pole (19–30) around which he organizes his entire star-map. Moreover, Aratus continues, the smaller Wagon, while much less obvious in the sky, is more reliable because it circles much closer to the North pole itself (40–4). Thales was thus the first Greek to see some reason for isolating a group of stars that includes Polaris; and according to Callimachus, he did so by watching the sky more closely than any earlier Greek. It is tempting to infer that Thales viewed these stars as the center of the sky, or used them to establish such a center.[22] But strictly navigational uses, which is all that Aratus and Callimachus mention, are more plausible. Here again, we have no firm evidence that Thales proposed circular orbits, much less a geometric model of the cosmos.

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[20] He was demonstrably familiar with works by many philosophers, including Democritus (whose works he catalogued) and several members of the Lyceum; see White, 1994.

[21] The report appears again in Sch. *Rep*. 600a (A 3), alongside three other claims about celestial phenomena; for two of these Eudemus is elsewhere cited explicitly (cf. D. L. 1.23 and A 17), and he is the likely source for the third as well (cf. D. L. 1.24 and A 19, to be discussed in §4 below). The reliability of this report about Thales and the Wagon is supported both by the early use of *ἀστρονομεῖν* for such star-mapping and by other evidence that this process intensified in the sixth century; see Tannery, 1893, pp. 4–8. Moreover, the little Wagon appears nowhere in earlier verse; cf. Ar. *Poetics* 25, 1461a20–21 on the notorious 'problem' of why Homer wrongly describes the Wagon (sc. Ursa Major) as the 'only' constellation that never sets (cf. Sch. *Il*. 18.487).

[22] Nilsson, 1905, also proposes Eudemus as Callimachus' source; but he probably goes too far when he argues that Thales used Ursa Minor to determine the North pole, which presupposes a geometric model of the cosmos. More likely, Thales simply found its nearly stationary position worth highlighting; Eudemus may then have related this to later attempts (at least as early as Eudoxus; see Eudoxus frr. 11 and 76 Lasserre) to locate the pole by reference to it.

Callimachus also provides suggestive clues to Thales' observational practice. First, he situates him at Didyma, on a coastal ridge with a clear view of the horizon to the west and south, and hills on the eastern horizon to mark the risings of sun and stars (cf. *De Signis* 1).[23] Unlike Miletus, which lies low on the south side of a bay, Didyma was thus an ideal site for stargazing. It was also the site of a famous oracle of Apollo, and keeping its lunar calendar of festivals in line with the seasons would have been an added incentive for observation. Another detail is worth noting. Callimachus, imagining the primitive methods and crude devices of a largely preliterate society, depicts Thales using a κώνειον or 'stalk' (57) to draw on the ground. The word appears only once elsewhere, in the lexicon of Hesychius, where it is glossed as a *narthex*, the stalk of the giant fennel used by Prometheus to carry fire and by bacchants for a thyrsus. The sacred connotations of the word suit Thales' presence in the temple precinct. But the large size of such a stalk would make it awkward for drawing, unless it also served some other purpose. Some parallels suggest one. Callimachus, in an elegy only partially preserved, tells how the astronomer Conon had recently introduced the constellation *Coma* or Lock in honor of Queen Berenice (fr. 110; cf. Catullus 66.1–6, closely modelled on it). Vergil, who knew his Callimachus well, describes Conon using a *radius* or 'rod' to chart several constellations (*Ecl*. 3.40–2). Conon probably used a dioptra to sight the stars precisely. Thales, of course, had no such instruments. But a much simpler device, used much earlier in Egypt, shows how a long stalk could serve the same function. As the Alexandrian poets knew, Egyptian priests had long used the notched rib of a palm leaf to mark the risings and settings of stars exactly.[24] Callimachus, in depicting Thales using a stalk, may thus allude specifically to his observational astronomy.

Observations of two other clusters of stars are ascribed to Thales: the Pleiades (A 18) and the Hyades (B 2). Both were known much earlier. They are named already in Homer, once in each epic. The context is in each case significant: on the shield Hephaestus makes for Achilles in *Iliad* 18 (487–9), and in the directions Calypso gives Odysseus for sailing home in *Odyssey* 5 (273–7).[25] The latter, where the hero is advised to keep the Pleiades and three other constellations on his left as he steers, exemplifies the kind of strictly observational knowledge that Aristotle and his colleagues called 'nautical astronomy.'[26] But Calypso also indicates a time of year, albeit crudely, when she names the Pleiades first and then calls Bootes, which is diametrically opposite, 'late-setting.' On the shield, the stars signify time primarily: alongside the sun and a full moon (to signify days and months), the Pleiades and Hyades are joined by Orion and Arcturus, all of which mark seasonal chores in Hesiod. Telling time, then, is already an important function of these stars in early Greek poetry.[27] It is also why Thales watched them closely.

Thales' interest in time appears most clearly in his observation of the Pleiades. But a look first at the Hyades will show how carefully he watched the sky. A scholium on Aratus reports that Thales distinguished two Hyades, one northern and one southern (Sch. 172: B 2). In doing so, he marked what was later conceived as celestial latitude, though the scholium suggests (whether or not the terms βόρειον and νότιον are Thales' own) that he did so simply in terms of

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[23] Scully, 1962, p. 129, describes the site: 'Beyond the temple, the land, never high, falls off rapidly toward the Gulf of Mendelia, so that the temple stands exposed at the center of a vast landscape: a circle which is defined on the south by the ridge lines across the gulf, on the west by the arc of the Dodecanese beyond Cape Monodendri, on the north by the mighty horns of Mykale's flank beyond Miletus, and on the east by ranges of hills beyond which rises the fanged summit of Latmos.'

[24] See S. West, 1982; for the use of palm-ribs, see Edwards, 1961, pp. 257–61.

[25] Each case reflects divine knowledge, imparted only to privileged mortals, viz. the chief protagonist in each epic.

[26] *An. Pos*. I.13 79a1; cf. *An. Pr*. I.30 46a17–21.

[27] Stars that rise and set are useful for navigation only during their periods of visibility; keeping track of the seasons, weather, and festival cycles mattered to all.

direction. But why he distinguished only two stars is puzzling. The classical Hyades definitely comprised more than two stars. Archaic texts also speak invariably of more than two. The same scholium records Hesiodic verses naming five (fr. 169 MW) and reports that Musaeus did the same (2 B 18 DK), while Pherecydes (*FGrH* 3 F 90, reported by Hippias 86 B 13 DK) added two more.[28] One possibility is that Thales applied the same name to two different clusters, as he apparently did for the Wagons or Bears. For the Wagons, however, there is both a schematic similarity and Near Eastern precedent, neither of which suits the Hyades.[29] More likely, then, Thales either singled out two stars in the traditional Hyades or extended it to include another star; and he probably did so because he noticed some significant difference in their behavior. The Hyades, along with the Pleiades, were one of the oldest and best known indicators of seasonal weather change (cf. Pliny *NH* 2.110). In particular, their morning setting (the last day they are visible above the western horizon before sunrise) occurred in late November (throughout the Archaic and Classical periods), around the onset of the rainy season around the Aegean. So closely was the cluster associated with rain, in fact, that its name was derived by some from ὑ̃ειν 'to rain' (Sch. 171; cf. Cic. *ND* 2.111). Traditional lore thus gave Thales incentive to watch these stars. There is also indirect evidence that he distinguished two of them because they set on different dates.

The Hyades have long been considered part of Taurus. They form the V-shape of its head, which the Greeks also called *Boukranion* or 'oxhead' (Aratus 167–74; cf. Geminus 3.3). This name may derive from Babylonian usage, where the image was adopted very early. But Greek knowledge of the zodiacal constellations (let alone their use as 'signs' to partition the circle of the ecliptic) almost certainly postdates Thales.[30] Taurus in particular is first attested in Eudoxus (fr. 29 Lasserre), and even he continued to record risings and settings under the traditional Greek name of Hyades. In fact, the earliest extant observations under the adopted name of Taurus come from Callippus (c. 330, probably in Cyzicus), who recorded different dates for the head, horns, and tail of Taurus but apparently nothing at all for the Hyades. The rationale is clear: his dates span the full month defined by the zodiacal sign.[31] But two of the parts he distinguishes (horns and head) are consistent with the original image of an oxhead; and their morning risings and settings each occur twenty days apart. Thales thus had good reason to distinguish a star or stars in the later horns from those in the original head, though he apparently kept the older name 'Hyades' for all of them.[32] The Pleiades offer an intriguing parallel. They too were eventually integrated into Taurus as part of its back; and whereas

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[28] The scholium also reports that Euripides (fr. 780 Nauck) counted three and Achaeus (fr. 46 Snell) four.

[29] The Wagon is a figural constellation, and its alternative Greek names (both Bear and Helice) match Akkadian usage; see Szemerényi, 1962, pp. 190–91. The Hyades, by contrast, are a non-figural cluster and are not named for any shape; see Scherer, 1953, pp. 146–9.

[30] For the Babylonian Bull, see Scherer, 1953, pp. 166–7; on the Babylonian zodiac, see Dicks, 1970, pp. 163–5; on early Greek study of the zodiac, see Panchenko, 1999, and n. 12 above.

[31] The calendar appended to Geminus reports that Callippus assigned the morning setting of the tail of Taurus to Libra 28 (Oct. 23), the head's to Scorpio 9 (Nov. 3) and the horns' to Scorpio 28 (Nov. 22); the last of these is the day after the Hyades set for Euctemon (c. 430, probably in Athens) and the day before they set for Eudoxus (mid-fourth century, probably on Cnidos), and all three days signal rain. Similarly, Callippus assigned the morning rising of the tail to Taurus 4 (April 26), the head's to Taurus 13 (May 5), and the horns' to Taurus 32 (May 24); the last of these is the day the Hyades rise for Euctemon, and five days before they rise for Eudoxus (on Gemini 5: May 29). Discrepancies presumably reflect differences in latitude and observational methods or conditions; cf. Ptol. *Phaseis* 67.

[32] The likeliest candidates are the very bright alpha Tauri (Aldebaran) and epsilon. Alpha and epsilon are the eyes of the head, and Sch. Aratus 172 reports that 'those who count two Hyades distinguish its eyes'; beta (at the tip of the northern horn), though much brighter than epsilon, is much further north of alpha (over 12° vs. 2° for epsilon) and nearly an hour further west.

Hesiod fails to distinguish their morning setting from that of the Hyades (*Op.* 615) – a gap of some ten days – Thales assigned a precise date to the Pleiades (A 18). That he also singled out two of the Hyades to mark different dates remains only a conjecture, though one fully consistent with the constraints Dicks sets on archaic astronomy. In any case, B 2 confirms what both Plato and Callimachus report, that Thales watched the stars closely. That he did so at least in part to track periodic cycles of time gains further support from testimony about the Pleiades.

3 Thales *Astrologos*

The Pleiades were the most important stars of all in archaic Greece, because they mark key stages in the agricultural cycle. In particular, their morning setting and rising (their last and first appearance on the horizon at dawn) mark the beginning and end of the farmer's year: ploughing in November and harvest in May. As *De Signis* 6 puts it, 'the Pleiad bisects the year by its setting and rising.' Or as Aratus explains, they mark, respectively, the onset of winter and summer in the traditional year (264–7; cf. Pliny *NH* 18.280). They do so, however, quite crudely. The extended size of the cluster makes its rising and setting impossible to determine precisely, and Ptolemy explicitly excludes it from his catalogue of stellar dates (*Phaseis* 9). Even Hesiod, who uses the Pleiades to mark the beginning and end of his primitive farmer's almanac in *Works and Days* (383–4), takes care to correlate their appearances with the even less regular behavior of flora and fauna.[33] There was thus a real need for a more reliable measure of the agricultural year. A summary report in Pliny suggests that this is what Thales provided.

> The morning setting of the Pleiades Hesiod (for an *Astrology* in his name too is extant)[34] recorded occurring on the autumnal equinox; Thales on the 25th day from the equinox; Anaximander on the 29th [12 A 20]; Euctemon <on the 44th; Eudoxus> on the 48th. We follow Caesar's observation above all; this will be the system for Italy. [*NH* 18.213: A 18][35]

Pliny's report presumably derives from earlier work or works that compiled differing claims, as in the Geminus calendar. But the names in Pliny's list, which ends with Eudoxus in the mid-fourth century, make Eudemus (or a later work dependent on him) the likely original source.[36] The sequence, at once numerical and chronological, is striking but puzzling. Later observers propose longer intervals, some dramatically so. What accounts for the discrepancies? The precession of the equinoxes did move stellar events forward in the solar year, but only at a rate of about a day every seventy years; and the remaining differences are too large to ascribe simply to latitude or observational methods or conditions. The crux must therefore be the other

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[33] Snails climb at its rising (571–2), cranes migrate at its setting (448).

[34] Cf. frr. 288–93 MW, widely but mistakenly ascribed to Hesiod.

[35] The supplement is Boeckh's, 1863, p. 86, based on data in Geminus' calendar: Euctemon has the equinox on Libra 1 (Sept. 26) and the morning setting of Pleiades 44 days later on Scorpio 15 (Nov. 9), whereas Eudoxus has the latter four days later on Scorpio 19. Pliny, following Sosigenes' work for Julius Caesar (18.211), adopts Nov. 11 (18.225); if this is the Sosigenes cited in Simpl. *In Cael*. 488 as drawing on Eudemus (fr. 148), Pliny's own debt to Eudemus is secure; but Simpl. more likely refers to the later Peripatetic teacher of Alexander of Aphrodisias. According to Le Bonniec, 1972, p. 129, all the Pliny mss. record 29 days for Anaximander (emended in one to 30); Diels, in 12 A 18, follows the scholia on Germanicus *Aratea* drawn from Pliny (p. 209.12–16 Breysig) which record 31 days for Anaximander.

[36] Especially notable is the absence of Callippus, who probably made his observations where Eudoxus did (cf. Ptol. *Phaseis* 67) and (in the Geminus calendar) put the equinox on the same date as Euctemon but the setting of the Pleiades a day later. Pliny, who carefully distinguishes subregions (18.214–15), explicitly cites them to illustrate discrepancies among observers 'in the same region': *eorum qui in eodem regione dissedere unam discordiam ponemus exempli gratia* (213).

factor in Pliny's relative dates: the equinox. Thales, he implies, proposed a date for this solar event by reference to a stellar event. Did some 'Hesiodic' verses do so too, as Pliny alleges? His figures fall into three groups: 'Hesiod' sees no difference in the two events; the two Milesians separate them by almost a month; and Euctemon and Eudoxus add roughly half a month more. This points to three inferences. First, Hesiod, who marks the *beginning* of his year with the Pleiades (*Op.* 383–4) but nowhere refers to either equinox (either in *Op.* or in any fragments or testimony, including the *Astrologia* cited by Pliny), probably did not mention any date for the equinox; more likely, Pliny or his source simply equated it with his *new year* date (cf. *NH* 18.201). Second, the Milesians did specify dates for the equinox, namely, by correlating it with current stellar lore. Third, over a century later, first Euctemon and then Eudoxus marked the equinoxes much more accurately. Was Thales then the first to propose a date for the equinox?

Dicks has vigorously denied that either Thales or Anaximander established an equinox.[37] He is indisputably right in one sense: the intervals reported by Pliny are incorrect. But Dicks also denies that the Milesians could even attempt to date these events. His case rests on the reasonable premise that neither of them had an adequate geometrical model of celestial orbits. But provided we do not interpret 'equinox' rigorously (as the moment when the sun's path intersects the celestial equator) but loosely as a particular day (as popular usage always has), this hardly rules out their using other methods, such as basic arithmetic. Moreover, Dicks neglects crucial evidence from Eudemus indicating that Thales did measure other solar phenomena – the solstices – which even Dicks agrees were easy to establish. Diogenes Laertius cites Eudemus' *Research* for a report that Thales 'foretold *tropes*' (1.23: A 1 = Eud. fr. 144), then adds that Thales 'first discovered the period [*πάροδον*] from *trope* to *trope*' (1.24). The two claims are closely related, since the only way to 'foretell' the *tropes* reliably is by determining the period between them. Moreover, the second report as well as the first derives from Eudemus. Theon preserves an excerpt from Dercyllides citing Eudemus' work before reporting more fully that Thales 'first discovered the period [*πάροδον*] of the sun's *tropes*, that it does not always turn out equal' (198.16–18: A 17 = Eud. fr. 145).[38] A solar *trope*, of course, is a solstice. But the Greek term is worth retaining here because it highlights the observational origin of the concept.

The solstices can be crudely approximated by noting the days when the midday shadow of a fixed object is shortest and longest. We might therefore suppose that the *tropes* were so named because the lengthening or shortening shadows 'turn' and begin the opposite process. But the usage of early poets favors a different explanation. Homeric epic nowhere mentions fixed points in the solar year.[39] The *Odyssey*, which has more occasion to include navigational lore, does refer once to the 'sun's turns' (15.404). What the phrase indicates there, however, is direction, not time: the herdsman Eumaeus uses it to indicate where he was born: in 'Syrie'

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[37] Dicks, 1966; cf. the objections of Kahn, 1970, pp. 111–15, unduly dismissed by Dicks, 1972.

[38] Editors have followed Fabricius in printing *περίοδον* here; but the mss. of Theon have *πάροδον*, which is certainly correct. As the prefixes suggest and usage confirms, the latter refers specifically to the annual linear progress of sunrise and sunset north and south along the horizon, whereas the former refers to daily movement across the sky from east to west (that is, rotation or revolution); cf. Theon 130.15, 9.10, Proclus *Hyp*. 1.12 and 123. On Dercyllides, who was probably active shortly after Hipparchus c. 100 BCE, see Dillon, 1994, cf. Mansfeld, 1994, p. 64. Dercyllides or Theon may also be the source of D. L. 1.24: both use the terminology of *πρῶτος εὗρεν*, both isolate the same two discoveries (foretelling eclipses and solstices), and D. L. simply omits mention of inequality; cf. Kahn, 1970, p. 112 n. 49. A similar report in Sch. *Rep*. 600a, which specifies that Thales was only 'first of Greeks' to predict these phenomena, probably also derives from Eudemus; see n. 21 above.

[39] Homer's only plausible reference to the solar year itself (none to specific dates or periods) indicates how little was known. The herds of Helios, visited by Odysseus and his crew (*Od*. 12.127–30), comprise 350 cattle (sacred to Zeus and Olympians) and 350 sheep (sacrificed to the dead; cf. 10.522–8), which Aristotle (fr. 175: Sch. *Od*. 12.128–9, Eustathius 1717) interpreted as representing, respectively, the days and nights of the year; the Homeric year would then be roughly fifteen days too short.

(403), most likely far to the east.[40] The 'turns' simply mark the northernmost (or southernmost) point the sun reaches on the horizon in its daily rising and setting through the year. The phrase thus marks what we call a solstice, but it does so by reference to the *place* where the sun 'turns' on the horizon before rising progressively further south (or north). Like stellar periods, then, solar periods were originally tied to observation of the horizon at dawn and dusk.

In archaic Greece, the most accurate way to specify the *time* of the solstices was by reference to stellar phenomena. Already in Hesiod, the winter solstice occurs sixty days before the evening rise of Arcturus (*Op.* 564–7), the summer solstice fifty or more days before its morning rise (663–5, 609–11). But the dates of stellar risings and settings vary widely for different horizons and latitudes, and precession shifts them slowly but steadily earlier in the seasons as the decades pass. To obtain an accurate and durable measure of seasonal cycles, the 'sidereal year' had to be replaced by an annual solar cycle. It may seem incredible that no one did this before Thales, but that is exactly what Diogenes reports (1.27): 'they say he discovered the seasons of the year and divided it into 365 days.' Both the accuracy of his figure and its limited precision – an exact but integral number of days – confirm that Thales established at least one solstice. Some of his contemporaries may have come close. Diogenes (1.91) quotes a riddle in four hexameters by another of the seven sages, Cleobulus of Lindos, which describes a year of twelve months of thirty days each; and Herodotus (1.32) depicts Solon of Athens, also one of the sages, using the same scheme augmented every other year by an intercalary month of thirty days. Only by observing annual solar events could Thales obtain a more accurate figure for the solar year; and only the solstices, which we know were noticed long before his time, can be readily and reliably established by observing the horizon.

How Thales determined the solstices we cannot be sure. One method, with obvious ties to stellar observation, was simply to watch for the *first* day the sunrise (and / or sunset) *appeared to stop* moving north (or south) on the horizon. Another method, which would be consistent with evidence to be discussed below, was to count the days the sun *appeared* to rise (and / or set) at the *same* point on the horizon, and then to divide that number in half.[41] Both methods would require careful observation, of course, and neither would ensure accurate dates for the solstices. But even if Thales failed to find the true dates of the solar *tropes* (which the absence of a definite article in the reports quoted above from Eudemus may imply), he would still measure the length of the solar year accurately if he hit the same date; and repeated observation over several years would tend to reduce the margin of error. There is thus good reason to accept the report, which quite likely derives from Eudemus, that Thales was the first Greek to establish an accurate measure of the solar or 'tropical' year.

In the process, it seems, Thales also observed some irregularity. This, I suggest, is what Eudemus meant in saying that Thales discovered that the period (*πάροδος*) of the solstices is unequal (A 17). What Thales noticed was not that the solar year itself varies in length from year to year, but that the period between the summer and winter solstices in each year is not the same as that between the winter and summer solstices. The actual difference, of about four and

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[40] On this puzzling phrase, see Heubeck and Hoekstra, 1989, p. 257. *Tropes* may not have been common knowledge: Eumaeus addresses Odysseus the navigator (cf. *ἀντολαὶ Ἠελίοιο* for directions in 12.4, *πείρατα Ὠκεανοῖο* for location in 11.13); and Eumaeus, though a herdsman who might watch stars to guide his seasonal chores, explains how he was kidnapped when young by Phoenician traders 'famous for navigating' (*ναυσίκλυτοί*, 415).

[41] Dicks, 1966, p. 31 (cf. 1972, p. 176), emphasizes that the declination of the sun changes minimally at the solstices, hence the sun appears to rise and set at the same points on the horizon for several days. But the resulting imprecision would be reduced by computing the middle day; cf. Huxley, 1963, p. 99. It is often suggested that Thales derived his measure of the year from Egypt, which had used a 365-day 'floating' calendar for over 2000 years; see Parker, 1950, esp. pp. 51–6. But the Egyptian year had only three seasons, and Thales recognized four (D. L. 1.27, discussed below).

a half days, was large enough to notice and measure, even if only approximately, by repeated close observation of the horizon.[42] By 432, in fact, Euctemon and Meton recorded a difference of five days (*Ars Eudoxi* col. 22–3, confirmed by the Geminus calendar). Evidently, then, Thales was a careful, conscientious, and systematic observer. He adopted the hypothesis of regular periodicity for the sun and he measured it numerically. Yet he also noticed, and could confirm by repeated observation, that the solar year is asymmetrical. Some two centuries later, Eudoxus dismissed the data of Euctemon and Meton in order to maintain, perhaps out of allegiance to Pythagorean or Platonic principles of symmetry and regularity, the hypothesis that the motion of the sun is constant and the periods between solstices essentially equal (*Ars Eudoxi* cols. 22–3). If Thales did observe and accept some inequality here, as Eudemus apparently reports, then he framed one of the central problems for scientific Greek astronomy. For this inequality is evidence of the so-called solar anomaly, and in Neugebauer's judgment, the discovery of this anomaly 'is not only one of the most remarkable achievements of early astronomy but also had a decisive influence on its whole methodology.'[43]

Diogenes' reference to 'the seasons' (1.27) takes us still further. The definite article implies that Thales recognized four seasons, not just the three used in Egypt and early Greece.[44] He may not have been the first Greek to divide the year into quarters. Alcman, born probably a generation or so earlier, names the canonical four seasons in a song (fr. 20 Page), and in terms that suggest the division was a novelty: he first asserts there are three, which he names, then adds spring as a fourth.[45] But if we can no longer tell when or where the fourfold division originated, two other points are more significant. Thales was apparently the first to quantify the four seasonal intervals, and as Pliny's report shows (A 18), he did so by reference to both solar and stellar phenomena. The decisive advance was not to divide years into four seasons, but to establish a comprehensive sequence of measured intervals between celestial events. If Thales did this, as our evidence strongly suggests, then he had good reason to mark the equinoxes.

Hesiod divides the year into roughly equal halves at the morning rising and setting of the Pleiades, not at the solstices, which he puts somewhat later (over a month, but without specifying any figures). There was little point in combining these two divisions to mark boundaries between the four seasons. Not only would summer and winter then be more than twice as long as spring and autumn. Even worse, the resulting seasons would lack their traditional signs: the proverbial swallows of spring would return in winter and leave before summer ended, and so on. For Thales, the imbalance would have been almost as bad: according to the data reported by Pliny (A 18), summer would then extend twenty-five days beyond the equinox, hence last fifty days longer than autumn. However, once Thales used the solstices to measure the length of the year and its two

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42 M. West, 1978, p. 381, calculates the period from winter to summer solstice in 700 BC as 184.87 days, from summer to winter solstice as only 180.38. Observations over several years, besides reducing problems due to weather and the like, would also enable Thales to reduce error by averaging any conflicting figures – provided he held that the anomaly is *regular*.

43 Neugebauer, 1975, pp. 55–6; cf. pp. 626–9. Eudemus surely appreciated this: from him (fr. 149; cf. *Metaph.* XII.8 1073b32–7) comes the report that the solar anomaly is what led Callippus to modify Eudoxus' account of the sun's revolutions; cf. Dicks, 1970, pp. 190–91.

44 The three *ὧραι* in Homer and Hesiod (*ἔαρ, θέρος, χεῖμα*) are Indo-European and refer to climatic periods; *ὀπώρα*, which they also mention, refers specifically to harvest (it was later adjusted to *μετοπώρα* or 'after-harvest' to designate autumn); see Nilsson, 1920, pp. 71–2, cf. LSJ s.v. *ὥρα* I.1. Hesiod, who mentions both solstices (*Op.* 479, 524, 663), presents the divine Ὧραι as a trio (*Theog*. 901–3); the *Hymn to Demeter* also knows only three seasons (398–403).

45 Ancient chronographers say Alcman flourished in the latter half of the seventh century. That makes his priority likely but uncertain; fr. 20 could be from a late song, composed after Thales proposed his four-season scheme. Influence in either direction is plausible: Sparta and Miletus had extensive contacts (cf. Anaximander A 1 and A 5a); tradition also tied Alcman to Sardis, which had dealings with Miletus and Didyma throughout Thales' life.

halves, it would be natural to use them also to mark the four seasons of the year; and he could easily have done so in the same way he may have estimated each solstice in the first place, by halving a given number of days. Simply by dividing each half of the solar year in half again, he could establish dates for both equinoxes without observing either directly. The result would be crude and inaccurate, but fully within the limits of archaic methods and ideas. It would also be adequate for practical purposes, and consistent with any observable equality in the duration of day and night. Not only would his methods and results satisfy the constraints set by Dicks, they are also parallelled by the contemporary Babylonian practice of placing the equinoxes arbitrarily at the midpoints of predetermined months.[46] Finally, it presupposes no cosmic model at all.

If Thales had both reason to mark the equinoxes and the means to do so, then there is nothing inherently implausible in Pliny's report that he and Anaximander quantified the interval between the autumnal equinox and the morning setting of the Pleiades (A 18). We cannot say what name they gave the equinox. The standard Greek term, ἰσημερία for 'equal-day' (a curious converse of Latin and modern usage that could reflect an origin in halving the days between solstices), is first attested much later.[47] But whatever they called it, the autumnal equinox in particular is an important seasonal sign well worth assigning a determinate date. For Hesiod, the morning rising of Arcturus (in mid-September) signals both the time to harvest grapes (*Op.* 609–14) and the end of the sailing season (*Op.* 670–7). But once the seasons were tied to solar dates, the equinox replaced Arcturus as the signal for harvesting grapes, an important event indeed for a society deeply interested in wine.[48] This seasonal function also fits well with reports that Anaximander 'prepared horoscopes' (D. L. 2.1: 12 A 1; cf. A 4) or 'horologues' (*Suda*: A 2). These were not astrological charts in the modern sense, of course; and they almost certainly had nothing to do with the zodiac. Nor need we assume that he used some sort of gnomon to construct a primitive sundial.[49] Once Thales marked the four cardinal points of the solar year, his younger associate had all he needed to draw up a list of solar and stellar intervals. The result would be a table of the seasons, which is exactly what is suggested both by the literal sense of the terms, and by our sources, which specify that the tables indicated solstices, equinoxes, *and seasons*. Some such list or table of dates is also implied by Pliny's report (A 18). The natural inference, then, is that the two Milesians, by integrating their newly determined solar year into the traditional sidereal year, constructed the first systematic calendar in the Greek world. In so doing, they created a framework for more precise and thorough observation. They thus paved the way for the *parapegmata* of the following century which in turn recorded the data necessary for the first rigorous theories of celestial mechanics. Ancient tradition is right, then, to view Thales as the father of Greek astronomy. His results were at best approximate. But by establishing a periodic system of solar and stellar cycles, he both raised new questions and pioneered methods that would lead to their solution.

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[46] For Babylonian practice, see Dicks, 1970, p. 166; Neugebauer, 1975, pp. 357–66, 542, 598–9, traces this schematic approach back to the seventh century. Woodbury, 1966, p. 608 n. 26, also suggests the method of counting and dividing days; cf. Kahn, 1970, pp. 113–14, who proposes a simple geometric method of bisecting the distance between solstices on either horizon. Dicks, 1972, emphasizes in rebuttal how inaccurate these methods would be; but that scarcely shows that Thales did not use them to reach the inaccurate result Pliny records in A 18.

[47] In *Airs, Waters, Places* 11; see Dicks, 1966, pp. 33–4; but Kahn, 1970, p. 113 n. 52, cites Hesiod *Op.* 562 to show that the basic idea of a time of year when day and night are roughly equal appears much earlier.

[48] Pliny 18.315, until the Pleiades set (319). A similar shift occurred in spring: it traditionally began when the swallows return, which Hesiod ties to the evening rising of Arcturus (*Op.* 564–9); the vernal equinox comes a month later.

[49] Kirk, Raven, Schofield, 1983, p. 103; here too, simpler alternatives (cf. n. 46 above) would defuse the objections of Dicks, 1966, pp. 29–30.

4 Honoring Oral Traditions

According to Eudemus, Thales was 'the first to do *astrologia*' (ἀστρολογῆσαι, D. L. 1.23: fr. 144). What he meant was not that Thales was a superstitious astrologer in the modern sense, but that he tried to 'rationalize' celestial phenomena mathematically by discerning λόγοι or numerical relationships in the pageant of the heavenly bodies and then measuring these periodic regularities. The basis for Eudemus' assessment, to judge from what little credible testimony we still have, was remarkably broad. It included, as we have seen, designating new stellar groups, careful measurement of the solar cycle, and systematic correlations of stellar and solar data. It also included new insight into the lunar cycle, and some attempt to correlate it in turn with the solar cycle.[50] In quantifying what he observed, Thales also advanced well beyond his predecessors. His figures for the tropical year (365 days) and for the interval relating an equinox to the Pleiades (25 days) are more exact than Hesiod's (regularly rounded to tens) or those of his contemporaries, Cleoboulus and Solon (360 days). His are also more accurate. Of course, others may have done much before him without leaving any record. But Theophrastus, who voiced this suspicion (B 1), concluded that Thales had eclipsed earlier figures by surpassing them – whereas his successors never eclipsed him.

Eudemus and Theophrastus agree with Aristotle that Thales deserves his place as a founding father of Greek science. Dicks and many others have reasonably wondered how, in the absence of anything written by him, they could support this claim. Such doubts can be answered in various ways, none certain, but many quite plausible. Some evidence may have come directly from Anaximander, who also quantified a number of celestial phenomena (12 A 18–22, most, if not all, derived from the early Lyceum). His 'book' is one plausible source, provided he offered some basis for his bold claim about 'the ordinance of time' (B 1). His 'horoscopes' are also a plausible source, at least for Pliny's report: Anaximander's figures may have been inscribed in Sparta (cf. D. L. 2.1),[51] and Thales' on a similar tablet or table at Miletus or Didyma. Other forms of inscription are also attested. Diogenes, citing the fourth-century Milesian historian Maiandrios, quotes inscribed words from a cup dedicated by Thales in a local temple of Apollo (1.28–9).[52] Even if this particular case is apocryphal, similar dedications, often with extensive inscriptions, are well attested for archaic Ionia and for Didyma in particular; and only a few decades later, Heraclitus dedicated (ἀνέθηκε) his writings in the Artemesion at Ephesus (D. L. 9.6; cf. 9.3). In short, if Anaximander or Thales before him, either by himself or with the help of an amanuensis or engraver of stone or metal, did record a quantified cycle of astronomical events, it would be natural for them or their heirs to deposit the record in a temple as a reverent dedication, perhaps as a guide to festival timing if not simply for safe-keeping. This record could then be consulted repeatedly, and recited orally until recorded anew by later generations, perhaps by Anaximenes or Hecataeus, or later by local chroniclers like Maiandrios, who we know did discuss Thales (frr. 16–18).

Such lines of transmission are necessarily conjectural. But they offer a healthy antidote to unbridled skepticism. Accurate reports about Thales could have reached Eudemus and his colleagues through many channels. Even oral tradition deserves more credit here than some

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[50] D. L. 1.24, in a context probably dependent on Eudemus, says Thales was the first to call the day before the full moon 'the thirtieth.' Since the term appears already in Hesiod (*Op.* 766), the point is probably that Thales proposed extending the term to the last day of 'hollow' (29-day) months as well as 'full' (30-day) months; this suggests that he knew that lunation averages about 29 1/2 days; see Lebedev, 1990, p. 83; cf. n. 3 above, and below on D.L. 1.24 and A 19.

[51] Hippias, who visited Sparta and studied astronomy, is a natural link here; see Snell, 1944.

[52] See *FGrH* 491–2, with Jacoby's notes. Maiandrios predated Callimachus, who reportedly based his poem about Thales (fr. 191) on this chronicle; D. L. quotes both fr. 191.76–7 and a prose version, presumably derived from Maiandrios; see White, 1994.

skeptics allow. Thales certainly inspired many fabrications. But even an otherwise negligible joke in D. L. 1.26 is especially apt if he was famous for keeping track of time: 'They say [λέγουσι] that when his mother was trying to get him to marry, he said, "It's not yet the right time [καιρός]." Then when his youth was past and she persisted, he said, "It's no longer the right time."'[53] Two other anecdotes are at once more credible and more revealing.

One was recorded by Aristotle (*Pol*. I.11 1259a5–19: A 10) and later by Hieronymus of Rhodes (D. L. 1.26: fr. 39 Wehrli), and whether true or not, it fits my account quite closely. The famous story of Thales cornering the market on olive-presses one year refers explicitly to his astronomy. With remarkable regularity, readers ever since Cicero (*Div*. 1.111) have misconstrued this detail and assumed what neither Aristotle nor Hieronymus say, that Thales predicted a 'bumper' crop one year. What Aristotle does say is that Thales noticed that the harvest was imminent (ἐσομένην), and that he did so on the basis of his *astrologia*. How exactly he did this is not explained. But the underlying assumption, which was accepted more and more widely from the fifth century on, is that astronomy provides the most reliable timetable for agriculture. The likeliest scenario, then, is that Thales correlated the olive harvest (probably its timing rather than its size) with an astronomical date, while everyone else still trusted in traditional seasonal signs, such as the behavior of other flora and fauna or trends in weather. It is tempting to speculate that he used his newly measured solar cycle. But in any event, it is at least suggestive that later agricultural writers set the vernal equinox as the time for pruning olives, the summer solstice as the time for their blossoming, the morning rising of the Pleiades (in May) as a critical date for the crop, and above all, the morning setting of the Pleiades as the time to harvest olives.[54] The harvest is thus tied to the very same stellar event that Thales was first to correlate with the solar year (A 18).

The other anecdote comes from the learned Apuleius, whose extant writings include works on Platonism and whose reading covered numerous works by Aristotle and his colleagues.[55] In short, he very likely drew on work by middle Platonists like Theon or Dercyllides if not on Eudemus directly. After presenting a stylish eulogy of Thales that enumerates his many contributions to astronomy, Apuleius highlights a discovery about the annual motion of the sun.

> He also discovered, when he was already very old, a divine ratio for the sun, which I have not only learned but have even confirmed by testing: how many times the sun measures by its size the circle which it traverses. [*Flor*. 18: A19; cf. Julian *Or*. 3 125d]

What exactly Thales discovered remains obscure. A possibly related report is recorded in D. L. 1.24, but in terms so obscure that scholars have emended the text in several ways.[56] One reason

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[53] D. L. tells the joke after citing Heraclides Ponticus (fr. 45 Wehrli) for the view that Thales remained single; others said he married and had a son named Kubisthos, and still others said he simply adopted his sister's son. All this may be pure invention. But it, and other reports about the families of Thales and his successors, may stem from inscriptional evidence, such as civic records, gravestones, or private dedications, all of which normally list fathers' names.

[54] See, in order, Pliny 17.127, 16.104 (cf. Theophr. *HP* 1.10.1, *CP* 2.19.1), 18.287–8 (cf. 17.11 and 16.104), and 18.319–20 (cf. Theophr. *CP* 3.7.10). Pliny (*NH* 18.273: 68 A 17 DK) records a very similar report (complete with the same moral about philosophers' disdain for commerce) about Democritus using the morning *rising* of the Pleiades in May to predict a bad harvest of olives and hence a high price for oil; cf. 68 B 14.2 for his intervals between the solstices and equinoxes, and B 14.3 for his dates for the morning and evening settings of Pleiades.

[55] For Apuleius' familiarity with scientific works by Aristotle, Theophrastus, and probably Eudemus, see White, forthcoming.

[56] The crux is σεληναίου: why the adjective and what does it modify? An understood μεγέθους is patently absurd. A supplement proposed by Diels and widely accepted introduces a reference to orbital circles; but Eudemus said Anaximander, not Thales, was the first to speculate about the distance of heavenly bodies (fr. 146; cf. 12 A 18–22).

for this obscurity is that Thales wrote nothing down. Apuleius goes on to describe how Thales passed on his discovery to one Mandrolytus of Priene,[57] whose offer to repay him any sum he wished was rebuffed by Thales with the comment, 'It will be payment enough for me if, when you begin to pass on to others what you have learned from me, you won't claim credit for yourself but will proclaim me rather than anyone else as the discoverer of this discovery.' Behind this tale, however fictitious it may be, lies a credible picture of oral transmission in a preliterate society. Thales requests an oath because he sees no other way to secure the credit for his insight; he had no way to record his ideas. We, of course, do, which is one reason why we tend to distrust oral traditions. But similar scenarios would readily explain how other ideas of Thales survived for later generations to record. Even today, after all, our debts to teachers and colleagues often pass unrecorded. In the spirit of Mandrolytus, therefore, I close by expressing my gratitude and respect for all that Alex has done to foster and advance the study of ancient philosophy in general and of Presocratic thought in particular.[58]

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[57] The name is in turn uncertain: 'Mandrolytus' is an emendation for *mandraytum* (in all mss.) proposed by Crusius, 1890, p. 677, on the basis of an obscure proverb involving the name (*CPG* 1.329: ps.-Plut. 57).

[58] I would also like to thank both Alex and many others at the Austin conference for fruitful discussion of this paper, and Dmitri Panchenko for very helpful comments.

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Chapter 2

Greek Law and the Presocratics*

Michael Gagarin

A number of scholars have argued that law was one of the areas of Greek life that had a significant influence on Presocratic thought, either by providing a model for the operation of the cosmos or more generally by acting as a model for and stimulus to free-flowing intellectual debate. These scholars have shed important light on certain aspects of early Greek thought, but they have also reached some conclusions that are in my view misleading. I believe that a more precise understanding of Greek law can help us refine the results attained thus far. And so in what follows, after considering the views of three leading scholars, Vernant, Vlastos, and Lloyd, I shall examine some features of early Greek law that seem to have been imperfectly understood in discussion of its influence on the Presocratics. I shall then pursue some more general implications of this understanding of law and the Presocratics.

The most comprehensive picture of the development of early Greek thought is drawn by Vernant (1982), who sees the rise of rational, political decision-making in several areas, including law, as the model for the Presocratics' transition to rational thought in the early sixth century. Without being at all precise about dates, he traces a radical change around the beginning of the archaic period from a religious climate with roots in the Mycenean world to the political culture of the polis. In law Vernant assumes an evolution from an earlier legal (or 'protolegal') process, in which a verdict was reached by means of automatic proofs that depended on religious force – ritual formulas, oaths, co-swearing, and witnesses – to the open, rational procedures of the classical polis. This new process of open debate and argument not only stimulated the rise of philosophical thought; it also provided a model of order and law that the Milesians and others could draw on for their cosmologies. He concludes that for the Greeks 'reason itself was in essence political' (Vernant, 1982, p. 130).

Vlastos (1947) focuses on the Presocratics, arguing that law provided a model for some Presocratic views of cosmic order that emphasized specifically the equilibrium of equal opposing forces. He begins with the traditional view that for the Presocratics a 'cosmic justice' provides an order to the universe which, despite violations, is ultimately stable. His main concern is to add the element of equality to this model: 'cosmic equality was conceived as the *guaranty* of cosmic justice: the order of nature is maintained *because* it is an order of equals.'[1] He argues, moreover, that justice cannot be assured without equality, since otherwise one opposite would eventually overcome the other, and he traces the idea that nature is a 'self-regulative equilibrium' back to 'the political assumption that justice was an affair between equals and that its settlement involved an equation of compensation to injury' (Vlastos, 1947, pp. 80–2).

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* I first met Alex Mourelatos at the annual meeting of the American Philological Association in 1972, where he took an interest in a paper I presented on Hesiod's legal dispute with his brother Perses (later published as Gagarin, 1974) and encouraged me to continue my work on this topic. I am delighted to offer this small token of gratitude to a friend and colleague of thirty years by returning to the subject of law and early Greek thought in this essay.

[1] Vlastos, 1947, p. 58 (italics his). Vernant accepts this equality of participants in the political-legal process ('those who contended with words … became in this hierarchical society a class of equals' – Vernant, 1982, pp. 46–7), but is not particularly concerned with this point.

Lloyd (1979, esp. pp. 246–8) too argues that legal and political institutions provide a model for cosmic order in the Presocratics and, like Vernant, argues that the kind of discourse fostered by these institutions led naturally to the climate of free rational debate that characterizes early Greek thought. He notes three different models of the cosmos that have their roots in the legal and political world: the cosmos as (a) a balanced relationship between equal opposed forces, (b) a monarchy, and (c) a state of constant aggression or strife (he places Anaximander's fragment in the first category – see below). And he argues that in other civilizations with comparably complex legal systems, such as the ancient Near East, law did not exert a similar influence on intellectual life as it did in Greece because law in Greece did not depend on the personal authority of either a god or a mortal, as it did in other societies.

The views of these scholars have much to recommend them; in particular, the suggestion that open political and legal debate had a strong influence on the intellectual life of archaic Greece seems particularly helpful in understanding why Greek rationality developed as it did. But these scholars' understanding of early Greek law needs some refinement. We may begin with Vernant's evolutionary model. His assumed protolegal stage is reconstructed from a few alleged traces in the law and literature of the archaic period together with comparative evidence from other early cultures in which automatic procedures like oaths and ordeals are the rule.[2] The evidence indicates, however, that such procedures played only a minor role in the Greek legal process as far back as we can see it.

Once we leave the monarchical world of Mycenean Greece (where rational debate and argument may or may not have flourished), our earliest evidence for Greek decision-making is the poetry of Homer and Hesiod, and these authors portray procedures that are primarily and essentially rational. We do find the occasional use of automatic, religious procedures, such as drawing lots, in these poets, but this does not disguise the fact that in many areas of public life, including law, most decisions are reached by open debate and discussion. There is only one example in Homer of an oath helping settle a dispute (*Iliad* 23.566–611), and as I have argued elsewhere, the function of the oath in this scene is closer to the common rhetorical strategy of 'oath challenges' in classical Athenian law than to the use of oaths to produce automatic decisions in other legal systems.[3] Automatic procedures are used to settle a few specific issues in the fifth-century Gortyn Code,[4] but their role in an otherwise rational judicial process is explicitly limited. Automatic procedures in other cultures depend on a strong sense of a higher authority determining the outcome ('the hand of God'), but as early as Homer the Greeks viewed their gods as considerably less authoritative than the gods of these other cultures and as wielding considerably less than absolute power.[5] It is certainly possible that if Mycenean culture possessed any legal system at all,[6] it made some use of automatic procedures, but we

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[2] Vernant, 1982, pp. 80–1, citing Gernet, 'Sur la notion du jugement en droit grec' (Gernet, 1955, pp. 61–81). The reconstruction of this supposed early legal process was first undertaken by Latte, 1920 and has been accepted by most continental scholars and some others ever since. I argue against this view in several recent papers; see further below.

[3] Oath challenges, or proposals that one of the parties swear an oath, are often reported in the classical period but, at least in our sources, are almost never accepted; see Gagarin, 1997.

[4] For example, if a dispute arises concerning responsibility for a divorce, a judge decides after hearing from both parties, but if a man accuses his wife during a divorce of taking some household items to which she is not entitled, she is allowed to keep the disputed items if she will swear a specific oath that she is entitled to them (*ICret*. IV.72.2.45–3.9)

[5] Lloyd, 1979, p. 247 makes the point that the 'higher *personal* sanction or authority' (italics his) of a god or a king, is generally lacking in Greek law in contrast to the laws of other early cultures.

[6] Thomas, 1984, speculates about the possible structure of law in the Mycenean world, for which (as she notes) there is not a shred of evidence. She conjectures an oral process perhaps controlled by the *wanax* or king.

have no evidence for this; and if there was a change from such a system to rational judicial decision-making in post-Mycenean Greece, it must have occurred well before the time of Homer and the emergence of the archaic age.

On the matter of equality, Vlastos faces an immediate difficulty in making the case for equality in Presocratic justice, since the word *isos* ('equal') does not appear in those Presocratics who most notably draw on law and justice, Anaximander and Heraclitus.[7] Anaximander's one surviving fragment, that 'they pay a penalty and a retribution to each other for injustice'[8] (see below) certainly reveals the influence of law. But it does not mention or even suggest an equality or equilibrium in the process, and Vlastos can only find this in Anaximander by tracing his views back to an alleged 'political assumption that justice was an affair between equals and that its settlement involved an equation of compensation to injury' (Vlastos, 1947, p. 82).

The notion that Greek justice[9] was an affair between equals, involving equal compensation for injury or some other sort of equilibrium, is simply not supported by the evidence. Greek law did have a certain degree of procedural equality in such matters as giving an equal hearing and equal time to both litigants; and the application of laws to 'anyone' (τις, that is, any male citizen) did preclude certain differences based on status or relationship between killer and victim, that we find in many other early legal systems.[10] The Greeks also believed that justice required compensation for the injured party. But they did not think that litigants were necessarily equal in other respects or that the compensation should necessarily be equal to the injury. Compensation may legitimately be much greater than the injury, and it appears to be legitimate to demand that retribution or punishment be more severe than the original wrong.[11] Moreover, citizens who are prominent in Athenian life often engage in a continuing series of disputes with the same opponent or group of opponents; and these disputes may result in victory now by one side now by the other, as we can see in Demosthenes' continuing conflict with Aeschines, or Apollodorus' with Stephanus.[12] But this sort of continuing litigation, which could be represented as a tipping of the scales back and forth between two sides,[13] was not viewed as an equilibrium, even if a final resolution was achieved that satisfied both sides, nor did it require that the opposing parties be equal. Thus Anaximander's metaphorical

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[7] Anaximander apparently used the somewhat weaker *homoios* ('similar') in his explanation that the earth stayed in its place because of its similar distance from the extremes (KRS, texts 123, 124). But for the more central issue of the interaction of opposites within the indefinite (ἄπειρον) that Anaximander apparently describes in his one fragment, Vlastos, 1947, pp. 75–7, has to infer equality from the fact that Anaximander (apparently) said that the opposites were not unlimited and from a few passages in the mythological tradition that attribute equality to various kinds of things. Vlastos also relies on a passage in Aristotle's *Physics* (204b24–9), which explains that if one element was infinite, the others would eventually be destroyed by it (Vlastos, 1947, pp. 80–2); but Aristotle does not attribute this reasoning to Anaximander, nor does he say anything about an equilibrium, let alone an equality of elements. Kahn, 1960, essentially follows Vlastos' arguments and accepts his conclusion.

[8] I accept the now standard delimitation of the fragment as defended by, for example, KRS, text 110; for a skeptical view of its authenticity see Havelock, 1983, pp. 42–81.

[9] By 'justice' (δίκη) in a Presocratic context I mean the institution of law (including legal procedure) together with the similar process that is thought to be at work in the larger universe, human and divine.

[10] Though we should note that Greek laws generally distinguish slaves from free men and citizens from free non-citizens, and that the Gortyn laws also include at least two categories of free men, both apparently citizens.

[11] There are many examples of this in Homer and later literature, especially with regard to divine justice.

[12] For the former conflict see all three of the speeches of Aeschines and Demosthenes 18 and 19, which were written for the same trials as Aeschines 3 and 2 respectively. The latter conflict is summarized at Dem. 59.2–14.

[13] It is most notably represented thus in Aeschylus' *Oresteia* (*passim*).

assertion that the elements[14] 'pay a penalty and a retribution to each other for injustice' (διδόναι γὰρ αὐτὰ δίκην καὶ τίσιν ἀλλήλοις τῆς ἀδικίας) probably suggests that at different times different elements prevail over the others, but not that the elements are equal or exist in an equilibrium. I would not wish to conclude that there is no idea of equality in Anaximander or other Presocratics, but only that if there is, it does not come from the influence of legal thinking or legal institutions.

Thus the use of legal imagery by Anaximander falls into the third of Lloyd's categories for legal and political imagery in early Greek philosophy mentioned above: 'a state of constant aggression or strife.' His fragment does not fit the category to which Lloyd assigns it – the cosmos as a balanced relationship between equal opposed forces – and the other Presocratic fragments he assigns to this category (Parmenides B 9; Empedocles B 17.27ff and 30) do not contain any legal or political imagery. For Lloyd's second category – the cosmos as a monarchy – he cites Heraclitus B 53, Anaxagoras B 12, and Diogenes of Apollonia B 5 and 8, but only the first of these involves an explicit political (not legal) metaphor: 'war is king.' On the other hand, Lloyd's third category – the idea that the cosmos is in a state of constant strife – which is often considered a specifically Heraclitean doctrine, exemplified by his fragment B 80, '*dikê* is *eris*,' may well owe its origin to the special nature of Greek law. Indeed, the essence of Athenian law, the trial, was regularly called a 'contest' or 'competition' (ἀγών).

Legal imagery promoting the idea of the cosmos as continual strife is found primarily in Anaximander and Heraclitus,[15] though it may have influenced other Presocratics as well.[16] But the special nature of Greek legal procedure may also have had a broader impact on Presocratic thought than even Lloyd envisions. In seeking to explain why it is that law in other civilizations with comparably complex legal systems, such as the ancient Near East, did not exert a similar influence on intellectual life as it did in Greece, Lloyd suggests (Lloyd, 1979, p. 247) that in such cultures, unlike Greece, law continued to depend on the personal authority of a god or a mortal. But another difference may be more significant. As we noted above, in the ancient Near East, and in some other premodern societies with developed legal systems, legal procedure is primarily a matter of automatic procedures, such as oaths and ordeals, that require little or no rational discussion.[17] This feature is repeatedly evident in the statutes themselves, and it may thus be more significant than the appeal to a personal authority, which is found (if at all) only in preambles and epilogues. Regardless whether the authority for law is personal or impersonal, there is a substantial and important difference between these automatic procedures and Greek legal procedure, which, as we have noted, strictly limited the use of such procedures and confined them to the role of deciding specific, usually minor, issues.

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[14] The subject of the verb 'pay' in Anaximander's fragment is not expressed, but the most common view is that it is the elements; see KRS, text 110, with their discussion.

[15] In addition to fragment B 80, Lloyd also cites Heraclitus B 30 (the cosmos is an everliving fire, being ignited and extinguished in measures), B 94 (if the Sun transgresses, Justice (δίκη) will find out), and B 114 (a city must rely on its *nomoi*, for all human *nomoi* are nourished by one divine *nomos*). Only the second of these (B 94) seems to evoke the same legal idea as B 80. In B 30 no legal imagery is apparent, and the *nomoi* mentioned in B 114 may not be legal statutes in the narrow sense but more broadly 'moral and legal rules'; moreover, to the extent that these *nomoi* are legal they do not invoke the dynamic legal procedure envisioned by B 80. With B 114 one might compare Heraclitus B 44: 'the *dêmos* must fight on behalf of the law (ὑπὲρ τοῦ νόμου) just as for the city's wall.'

[16] Parmenides (B 1.14) says that 'avenging Justice (δίκη) holds the keys of retribution (of the gates of day and night).' This may suggest the same sense of constant strife as in Heraclitus, though these verses describe the world of appearance that Parmenides is asking his audience to leave in order to pursue the way of truth.

[17] For a fuller discussion of the differences between Greek legal procedure and that found in the legal codes of other premodern societies – Hammurabi's code, the Qing code in pre-modern China, and two early medieval codes – see Gagarin, 2001.

In Greece, on the other hand, as far back as we can see (which is to say in Homer) legal or protolegal procedure relied on open debate and discussion, not automatic proofs. The legal procedures we find in early literary sources differ from one another in certain details, such as decision-making by a single judge in some cases and a group of judges in others (and later by a large jury), but in all cases arguments are presented by opposing litigants and a decision is made based on those arguments.[18] By the end of the seventh century many, perhaps most, Greek cities had an officially recognized set of written statutes covering many common legal matters, and had evolved a formal, public procedure (*δίκη*) for regulating or settling disputes between members of the society. I have argued elsewhere that legal procedures in Greece were formalized and institutionalized earlier than legal statutes were written down and 'recognized,'[19] but whatever the historical priority, it is evident that, from a very early period, procedure itself is seen as the essential feature of law for the Greeks.[20] Statutes were certainly important and their publication by means of public inscription was an important means of asserting the authority of law, whether religious or secular; but it is now generally recognized that Athenian law has a fundamentally 'procedural orientation,'[21] and even a bare set of statutes like the Great Code at Gortyn shows a concern for procedure that is especially noticeable by comparison with its absence from other pre-modern collections of statutes, such Hammurabi's code (see Gagarin, 2001).

In sum, I would agree with Lloyd that legal and political institutions characterized by open debate and argument contributed significantly to the development of early Greek thought. I would add more specifically that the primary role of procedure in Greek justice, together with the particular nature of legal procedure in Greece, may have helped focus the attention of early Greek thinkers on process or procedure. This seems to have been an important concern of the Milesians and Heraclitus, and process remained important for many Presocratics (Anaxagoras, Empedocles, the atomists) despite the Eleatic attempt to deny its importance, or even its reality. In this way the special nature of Greek law may have had an influence on Presocratic thought that went considerably beyond the few legal images we find in the surviving fragments.

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[18] For a survey of what we know about early Greek law, see Gagarin, 1986; cf. Hôlkeskamp, 1999.

[19] Gagarin, 1986, pp. 1–13. I use 'recognized' in the sense of H. L. A. Hart's 'rules of recognition' (Hart, 1961).

[20] It is interesting that from a very different set of concerns and arguments, Havelock reached a rather similar conclusion, that the early Greeks viewed justice 'not as principle but as procedure' (Havelock, 1978, p. 37 and *passim*).

[21] Todd, 1993, pp. 64–7 and *passim*.

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2

HERACLITUS AND PARMENIDES

Chapter 3

Heraclitus and Parmenides

Daniel W. Graham

The two most philosophical Presocratics propound the two most radically different philosophies: Heraclitus the philosopher of flux and Parmenides the philosopher of changelessness. Clearly they occupy opposite extremes of the philosophical spectrum. But what is their historical relation? For systematic reasons, Hegel held that Parmenides preceded Heraclitus.[1] But in a footnote of an article published in 1850, Jacob Bernays noticed that in the passage we now know as DK 28 B 6 Parmenides could be seen as criticizing Heraclitus.[2] Bernays' insight had already been widely recognized as the key to the historical relationship between the two philosophers[3] when Alois Patin strongly advocated the Bernays view in a monograph published in 1899. But in 1916 Karl Reinhardt reasserted the view that Heraclitus was reacting to Parmenides.[4] Others argued that no connection was provable.[5] The Reinhardt view was never popular, while the Bernays-Patin view gradually came to be widely accepted.[6] Twenty-five years ago Michael C. Stokes (1971) launched a devastating attack on the view that Parmenides was replying to Heraclitus. That attack has never been answered and the Bernays-Patin thesis at present remains undefended.[7]

In this chapter I wish to argue that the Bernays-Patin thesis is true after all. And in the process of defending it, I hope to show that accepting the thesis has some value for understanding Parmenides beyond the external question of his relation to Heraclitus. Minimally, appreciating Heraclitus' influence on Parmenides will help us understand Parmenides' argument better; but beyond that, it may help us put the whole course of early Greek philosophy in perspective. I shall first review the evidence for a connection between the philosophers (section I), then analyze the evidence for a connection (II), consider the role of historical influences in philosophical exegesis (III), and finally try to reconstruct Parmenides' dialectical opponent from his argument (IV).

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[1] For the theory of becoming is a negation of the theory of being. See Hegel, 1971, pp. 319 ff. Needless to say, Hegel's authority assured his interpretation a wide reception.

[2] In his *kleine Schriften* (1885), vol. 1, pp. 62–3, n. 1.

[3] Bernays' footnote must qualify as one of the most influential footnotes ever written in the field of classical philology. See n. 6 below for some scholarly reactions.

[4] Zeller, 1892, expounded the Eleatic school before Heraclitus and also suggested that Heraclitus might have been reacting to Parmenides (pp. 739–40). But it is only with Reinhardt that we come to an adequate argument for the thesis.

[5] Zeller, 1892, pp. 737 ff.; Gigon, 1935, pp. 31–4; Verdenius, 1942, pp. 56, 77–8; Mansfeld, 1964, ch. 1.

[6] Windelband, 1894, p. 39 n. 2; Ueberweg-Praechter, 1920, pp. 95, 97, 99; Kranz, 1916, 1934; Burnet, 1930, pp. 179–80, 183–4; Cherniss, 1935, pp. 382–3; Vlastos, 1955, p. 341 n. 11; KR (tentatively) pp. 183, 264, 272; Guthrie, 1965, pp. 23–4; Tarán, 1965; and many others. In his revised edition of Zeller (6th edn., 1919, p. 684 [ff.] n. 1, at 686), Nestle abandons Zeller's view (see previous two notes), observing that the Bernays view is already generally established. The Reinhardt view has been defended by U. Hölscher (1968, pp. 161–5).

[7] Though not without adherents, for example, Coxon, 1986.

1 The Evidence

It is now generally accepted that the biographical evidence we have on Heraclitus and Parmenides is unreliable at best.[8] Evidence from the chronological tradition, moreover, is virtually useless, based as it is on *a priori* synchronisms and uncorroborated by other trustworthy evidence.[9] We are left with merely the general information that makes them roughly contemporaries at the end of the 6th century or the early 5th century BCE.

Such evidence as we have consists of pieces of text with similar wording. The verbal similarities might *a priori* be explained in several ways: (a) coincidence; (b) the influence of Heraclitus on Parmenides; (c) the influence of Parmenides on Heraclitus; or (d) the influence of a common source on both. Since Heraclitus was inclined to traduce and vilify those with whom he strongly disagreed,[10] it is unlikely that he would not have mentioned Parmenides; hence (c) is improbable.[11] Moreover, (d) seems implausible. For while Heraclitus makes use of traditional material, he always imposes a unique point of view, being at pains to stress his literary originality as well as his intellectual superiority to the tradition. Thus we may take as our main question the relative merits of hypotheses (a) and (b).

That the fragments of Heraclitus and Parmenides are, *inter alia*, literary creations hardly needs to be said. Charles Kahn has demonstrated by close interpretation that Heraclitus' text manifests the properties of 'linguistic density' and 'resonance.' Linguistic density is the 'phenomenon by which a multiplicity of ideas are expressed by a single word or phrase.' Resonance consists of the enhancement of meaning which occurs as themes or images are echoed in different texts.[12] Parmenides, for his part, presents his argument in the form of an epic poem purporting to present an epiphany of a goddess to the narrator. The poem shows both an awareness of earlier epic literature and a command of poetic technique. Since, then, both authors present us with consciously literary creations, it is appropriate to investigate the possibility of literary connections between them.

One further preliminary: if there are connections between Heraclitus and Parmenides, they will consist of internal references, presumably by the latter to the former. But how are we to recognize them as references? The device of implicit literary reference is the allusion. But the allusion does not consist of a unique syntactical form or structural element in general. In the present case the alleged evidence will consist of parallelisms of words and themes expressed in words. I shall take it that the term 'allusion' is a loaded word implying an author's intent to refer implicitly to another text (in the present case, a text by another author). The term 'parallelism,' by contrast, denotes an objective relation of similarity between two texts without any presupposition of intentional reference. Parallelism allows of what later Greek theory called 'the more and the less,' that is, a sliding scale of exemplification. For similarity is a variable relation, and indeed there may be several dimensions of similarity. Consequently, a study of parallelism does require judgment calls importing multifaceted evaluations. Nevertheless, it can proceed in the light of concrete intersubjective evidence, just as do other comparisons of complex entities in the real world. Thus a study of parallelism will provide the objective ground on which problematic inferences of literary reference and philosophical influence will be based.

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[8] Kahn, 1979, pp. 1–3; KRS pp. 181–3; Mansfeld, 1990, ch. 2.

[9] Mansfeld, 1990, ch. 2, now claims that the acme-method originated with the sophists and is visible in the synchronism of Parmenides and Zeno found in Plato's Parmenides.

[10] A 22, B 40, B 42, B 56, B 57, B 106, B 129.

[11] 'Dieses bleiben die Ecksteine der Geschichte der Vorsokratiker: Heraklit zitiert und bekämpft Pythagoras, Xenophanes und Hekataios, nicht Parmenides; dieser aber zitiert und bekämpft Heraklit' (Kranz, 1916, p. 1174).

[12] Kahn, 1979, p. 89.

Much of the debate about alleged allusions in Parmenides to Heraclitus has centered on Parmenides B 6. While this fragment constitutes one of the more celebrated cases of parallelism, its value has been challenged by critics. If there were only one case of parallelism, the debate would be undecidable. One swallow does not make a spring, as the Greek saying goes. But there are many cases. Even defenders of the view that Parmenides was reacting to Heraclitus often rather arbitrarily limit their consideration to a subset of the relevant parallels. But it is the very number of possible allusions that makes the question worth examining. Much remains to be said on both sides about what the cases of parallelism mean or do not mean. But first let us examine the cases.

Heraclitus	**Parmenides**
[I] B 28a. δοκέοντα ὁ δοκιμώτατος γινώσκει, φυλάσσει. B 41. ἕν τὸ σοφόν· ἐπίστασθαι γνώμην *ὁτέη κυβερνῆσαι [cf. Parm. 12.3 below] πάντα διὰ πάντων.	B 1.31–2: ἀλλ᾽ ἔμπης καὶ ταῦτα μαθήσεαι, ὡς τὰ δοκοῦντα χρῆν δοκίμως εἶναι, διὰ παντὸς πάντα περ ὄντα
[II] B 34. ἀξύνετοι ἀκούσαντες κωφοῖσιν [cf. Parm. B 6.7 below] ἐοίκασι· φάτις αὐτοῖσι μαρτυρεῖ· παρεόντας ἀπεῖναι.	B 4.1: λεῦσσε δ᾽ ὅμως ἀπεόντα νόῳ παρεόντα βεβαίως·
[III] B 91. [a] ποταμῷ γὰρ οὐκ ἔστιν ἐμβῆναι δὶς τῶι αὐτῶι καθ᾽ Ἡράκλειτον … ἀλλ᾽ ὀξύτητι καὶ τάκει μεταβολῆς [b] σκίδνησι καὶ πάλιν συνάγει … συνίσταται καὶ ἀπολείπει καὶ πρόσεισι καὶ ἄπεισι.	B 4.2–4: οὐ γὰρ ἀποτμήξει τὸ ἐὸν τοῦ ἐόντος ἔχεσθαι οὔτε σκιδνάμενον πάντῃ πάντως κατὰ κόσμον οὔτε συνιστάμενον.
[IV] B 103. ξυνὸν ἀρχὴ καὶ πέρας ἐπὶ κύκλου.	B 5: ξυνὸν δέ μοί ἐστιν, ὁππόθεν ἄρξωμαι· τόθι γὰρ πάλιν ἵξομαι αὖθις.
[V] [A] B 71. (μεμνήσθαι δὲ καὶ) τοῦ ἐπιλανθανομένου ἧι ἡ ὁδὸς ἄγει. [B] Cf. B 34 above. B 107. κακοὶ μάρτυρες ἀνθρώποισιν ὀφθαλμοὶ καὶ ὦτα βαρβάρους ψυχὰς ἐχόντων. [C] B 88. ταὐτό [τ᾽ ἕνι ?] ζῶν καὶ τεθνηκὸς καὶ τὸ ἐγρηγορὸς καὶ τὸ καθεῦδον καὶ νέον καὶ γηραιόν· τάδε γὰρ μεταπεσόντα ἐκεῖνά ἐστι κἀκεῖνα πάλιν μεταπεσόντα ταῦτα. B 32. ἓν τὸ σοφὸν μοῦνον λέγεσθαι οὐκ ἐθέλει καὶ ἐθέλει Ζηνὸς ὄνομα.	B 6.3–9: πρώτης γὰρ σ᾽ ἀφ᾽ ὁδοῦ ταύτης διζήσιος ‹εἶργον›, αὐτὰρ ἔπειτ᾽ ἀπὸ τῆς, [A] ἣν δὴ βροτοὶ εἰδότες οὐδέν πλάττονται, δίκρανοι· ἀμηχανίη γὰρ ἐν αὐτῶν στήθεσιν ἰθύνει πλακτὸν νόον· [B] οἱ δὲ φοροῦνται κωφοὶ ὁμῶς τυφλοί τε, τεθηπότες, ἄκριτα φῦλα, [C] οἷς τὸ πέλειν τε καὶ οὐκ εἶναι ταὐτὸν νενόμισται κοὐ ταὐτόν. [D] πάντων δὲ παλίντροπος ἐστι κέλευθος.

B 10. *συλλάψιες· ὅλα καὶ οὐχ ὅλα, συμφερόμενον διαφερόμενον, συνᾷδον διᾷδον, ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα.*
[D] B 51. *οὐ ξυνιᾶσιν ὅκως διαφερόμενον ἑαυτῷ ὁμολογέει· παλίντροπος ἁρμονίη ὅκωσπερ τόξου καὶ λύρης.*
B 60. *ὁδὸς ἄνω κάτω μία καὶ ὠυτή.*

[VI]
B 30. *κόσμον τόνδε τὸν αὐτὸν ἁπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησεν, ἀλλ' ἦν αἰεὶ καὶ ἐστιν καὶ ἔσται πῦρ ἀείζωον ...*

B 8.5:
οὐδέ ποτ' ἦν οὐδ' ἔσται, ἐπεὶ νῦν ἐστιν ὁμοῦ πᾶν

[VII]
B 30 (cont.) ... *πῦρ ἀείζωον, ἁπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα.*

B 8.21:
τῶς γένεσις μὲν ἀπέσβεσται καὶ ἄπυστος ὄλεθρος.

[VIII]
Cf. B 41 above.B 12.3:
B 64. *Τάδε πάντα οἰακίζει κεραυνός.*

ἐν δὲ μέσῳ τούτων δαίμων ἣ πάντα κυβερνᾷ.

A few comments are necessary on details of the evidence.

[I] Heraclitus' point turns, as often is the case, on a word play: 'The illustrious man knows and maintains illusions.' Parmenides' point has been a subject of much debate.[13] I take it that *χρῆν* is counterfactual, and the goddess is saying 'But nevertheless you shall learn these things too, how appearances would have had to be acceptable, all things being completely.'[14] There is a question whether the last expression should be *περῶντα* or *περ ὄντα*.[15] There are problems for both readings,[16] but it seems to me that, all things considered, the latter makes better sense.[17]

[II] The contexts of the two passages are different: Heraclitus criticizes the ignorant, Parmenides presents conditions of knowing. But the former does belong to a broadly epistemological

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[13] For a review of the debate and problems of interpretation, see Tarán, 1965, pp. 210–16.
[14] Cf. Mourelatos, 1970, pp. 194 ff.
[15] Simplicius MS A of *In de Caelo* has the former, MSS DEF have the latter reading.
[16] On the problems with *περ ὄντα* see Tarán, 1965, p. 214 n. 32; for problems with *περῶντα* and advantages of *περ ὄντα* see the valuable remarks of Mourelatos, 1970, pp. 212–16. Virtually all editors of Parmenides give *περῶντα*. Curd, 1998, follows Mourelatos.
[17] One problem that has not been discussed much is that the participle without epsilon is rare in Homeric verse (only two occurrences: Cunliffe, 1924, s.v. *εἰμί*, and relevant concordances of Homer) and does not occur in Hesiod. The Attic form appears only once (B 8.57) in the 20 simple and two compound instances of the participle in Parmenides. *ΠΕΡΟΝΤΑ* of an early manuscript without omegas or word breaks could be read either way. But the one example in Parmenides shows that he can use the form without the epsilon, and Mourelatos' arguments (see previous note) seem compelling to me.

setting, as does obviously the latter. I believe Parmenides B 4.1 deserves special attention, which I shall provide at the end of the next section.

[III] I take it that Heraclitus B 91a has been shown not to be an independent fragment but a paraphrase of B 12.[18] There are problems with 91b, in deciding which of the pairs, if any, go back to Heraclitus.[19] There is a distinct possibility of a connection here, but not a certainty.

[IV] Heraclitus' discussion of the properties of a circle illustrates the coincidence of opposites. Parmenides' goddess allows her exposition of truth to be circular without being viciously circular.

[V] Parmenides B 6 is the *locus classicus* for seeking allusions to Heraclitus. The motifs of the path or road and the metaphorical use of deafness and blindness to describe the plight of the ignorant are found in both authors. At [C] we meet the assertion that for ignorant mortals to be and not to be are the same and not the same. Heraclitus many times attributes sameness to opposites; a few of his more salient examples are listed. One juxtaposition of being and not-being in reports of Heraclitus, *εἶμέν τε καὶ οὐκ εἶμεν* in B 49a, is not a quotation, but a paraphrase of B12.[20] Concerning [D], there has been much debate over whether the correct reading of Heraclitus B 51 should be *παλίντονος* or *παλίντροπος*.[21] Note that on either reading it is possible that Parmenides echoes Heraclitus. But further, it can be shown on independent textual grounds that *παλίντροπος* is much to be preferred.[22] In Parmenides B 6.9 it is debated whether *πάντων* is masculine (the path 'of all men') or neuter (the path 'of all things').[23] If the latter, the phrase aptly captures the structure of Heraclitus' 'the way up and the way down.' The problem will be discussed below.

[VI] There is a clear difference of opinion between the philosophers about the diachronic existence of the kosmos.

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[18] Thus Reinhardt, 1916, p. 207 n. 1; 1942, p. 60 n. 24; Kirk, 1954, pp. 367–80; and Marcovich 1967, p. 206.

[19] For strong criticisms of B 91b as a fragment, see Marcovich, 1965, pp. 206–11. The term *σκίδνημι* is, apart from epic and lyric verse and a few occurrences in Ionic prose, 'rare in Prose' LSJ, s. v.; unfortunately, Plutarch, the source of B 91a, uses it 19 times (once in a quotation from Sappho: *Mor.* 456e8 = fr. 27) including the present case (sometimes in compounds, as searched in TLG). Though the pairings of opposites in B 91a seem to echo Heraclitus, it is perhaps impossible to determine what original text, if any, Plutarch is working from.

[20] Thus Kirk, 1954, p. 373; Marcovich, 1967, p. 211; Kahn, 1979, p. 288.

[21] DK and Kahn read *παλίντροπος*; Kirk, 1954; KR, KRS and Marcovich, 1967, *παλίντονος*.

[22] The decisive point is the simple observation that only Hippolytus (*Haer.* 9.9.2) gives a full citation, and only he gives it in a context which assures that he has a book in front of him when he cites the passage. He quotes the passage as one of nineteen quotations from Heraclitus, which guarantees that he is consulting a text. Other citations are one-line snippets in the context of some other discussion, which should warn us that the source is likely to be citing from memory. (One could not thumb through an ancient scroll, nor were there page numbers and indexes. Looking up passages was a laborious task and students were encouraged to memorize.) Such a citation gives evidence for the content of a passage, but not for precise wording. Note that in different passages Plutarch gives both readings (*Mor.* 473F [all MSS. except D], 1026B: *παλίντροπος*; 369A: *παλίντονος*) – a sure sign that he does not remember which is correct. Plutarch is notorious for quoting from memory: Helmbold and O'Neil, 1959, p. ix. On the unique value of Hippolytus, see Kranz, 1934, p. 118 n. 9; 1958; Vlastos, 1955, pp. 348–51. Kirk's rebuttal in KR, p. 193 n. 1 (same argument abbreviated in KRS, p. 192 n. 1), ignores the most telling arguments.

[23] See discussion in Tarán, 1965, pp. 66–8.

[VIII] The striking image of the cosmic pilot occurs twice in Heraclitus and once in Parmenides. Though the text of Heraclitus B 41 is corrupt, the general sense is not in doubt.[24]

2 Analysis

That there are parallels between Heraclitus and Parmenides is not in doubt. But is there some reason to think Parmenides is responding to Heraclitus, or may the parallels be the result of mere chance? The strongest argument in recent times for the latter view is that of Stokes (1971, 111–27). Like many on both sides of the debate who limit the domain of evidence artificially to some subset of the interesting parallels, he focuses on B 6.[25] Stressing the fact that Parmenides refers to plural mortals, Stokes argues on grounds of grammar and exegesis that πάντων of the last line should be taken as masculine, excluding an allusion to Heraclitus' way up and down (pp. 116–18). He further argues that there is no need to see in Parmenides' rejection of the identification of being and not-being a reference to Heraclitus' coincidence of opposites (118–19). After a detailed discussion of B6 (including issues not directly related to the Heraclitus problem) Stokes concludes,

> We are left with a few verbal 'reminiscences'; [i] the effect of these, if they have any, must of course be considered as cumulative … But the cumulative effect of nothings is nothing, and it may legitimately be doubted whether any of the alleged reminiscences have any effect at all; [ii] it would be exceedingly hard to specify any single passage of Parmenides which needs the postulation of a reference to Heraclitus to make it either intelligible or pointed. [iii] If Parmenides and Heraclitus have certain elements of vocabulary in common, that in itself proves nothing; they were both Greeks, both writing mainly in Ionic, and they were near contemporaries. I can find no reason whatever to suppose that either of them was known to the other and shall treat them throughout as independent thinkers. [iv] Such practice is justifiable even if Parmenides did know of Heraclitus, at least until it is shown (as it has never been) that Parmenides would have written even so much as a single syllable differently if Heraclitus had never opened his mouth or set pen to papyrus. (pp. 126–7)

Stokes puts the case against a connection in the strongest possible terms. As seen in [ii] and [iv], the argument seems to have the following form:

1 If Parmenides' text can be understood without appeal to Heraclitus, then we are not justified in adducing a connection to Heraclitus.
2 Parmenides' text can be understood without an appeal to Heraclitus.
3 Thus, we are not justified in adducing a connection to Heraclitus.

I believe we must concede point (2): one can in principle make perfectly good sense out of Parmenides' argument without appealing to Heraclitus, or, for that matter, to any other philosopher prior to or contemporary with him. But (1) raises a different set of problems and should not be conceded without argument.

Point (1) makes a perfectly good principle for a minimalist interpretation of Parmenides. It probably constitutes good counsel in many contexts to assume as little as possible so as to provide an interpretation which will offend as few scholars as possible. But here Stokes is invoking it in the context of a global interpretation of Parmenides. And in that context the considerations which support the principle simply as a prudent tactic do not apply. Why, then, should we accept (1)? One possibility is that the thesis is true in virtue of being an instance of a

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[24] Cf. Kahn, 1979, p. 170.
[25] As do Verdenius, 1942, pp. 77–8, Mansfeld, 1964, ch. 1.

universal principle. Could we, by substituting variables *X* and *Y* for the names of Parmenides and Heraclitus, arrive at a perfectly general hermeneutical imperative? Consider, for example, Heraclitus B 80: 'One must know that war is common, and justice strife, and all things come to be in accordance with strife and necessity.' This passage is widely thought to be a criticism of Anaximander.[26] But it is comprehensible in its own terms. Should we then *in principle* dismiss the possibility of a reference to Anaximander? If not, why not? Anaxagoras B 17 seems a restatement of Parmenides' conclusion rejecting coming to be and perishing. But it is an isolated parallel, and it makes sense as a principle in its own right. Should we, then, in principle dismiss the possibility of an allusion to Parmenides? What would it take to escape from this exegetical principle? The only hint Stokes gives is in [iv] that we must be able to show how the text would have been different if a predecessor had not written. But how could we do that, other than to say, for example, 'Anaxagoras would not have accepted that thesis unless Parmenides had argued it.' But here the skeptic can always reply, 'How do you know that?' The fact that a near contemporary enunciates a principle can always be taken as evidence that the idea is 'in the air.' Stokes' principle would indeed protect us from making some unwarranted connections between thinkers. But it also might, if it were taken seriously, sound the death knell to the history of philosophy as we know it, not to mention the history of ideas.

Is there, then, some specific property in Parmenides, or about the relationship between Heraclitus and Parmenides, which makes (1) appropriate for applying to them even if not for applying to other pairs of philosophers? Is the lack of reliable evidence for absolute dating decisive? I cannot see that it is. In the case of the pluralist philosophers and the later Eleatics we have similar problems in that they are all roughly contemporaneous. Yet it would seem hasty to rule out *a priori* the possibility of detecting some internal evidence influence among them (however difficult the task might be in practice). Is there any other feature of Parmenides' style or historical situation which makes it inappropriate to look for influences? One possibility is that his philosophy is couched in timeless terms and grounded on pure logical and ontological considerations. I shall have something to say about this possibility below (section III). But note for now that Heraclitus[27] and many other Presocratics would also claim that they are enunciating universally valid truths based on reliable evidence. Yet none of this precludes them from being subject to historical influences and from appearing in historical traditions. Overall, I cannot see that (1) could be defended as applying only to Heraclitus and Parmenides without special pleading. Nor can I see how a universally quantified version of (1) could escape a host of counterexamples.

One further problem with Stokes' argument is the assumption he makes that Parmenides is merely a philosopher laying out an argument. While it is undoubtedly true that Parmenides is a philosopher of the first rank laying out the first extended argument in Greek philosophy, he is also a poet. At least since Aristotle[28] there has been a prejudice among philosophers against taking philosophical texts as anything but philosophical texts. But Parmenides goes to a good deal of trouble to put his words into hexameters, creates (in part borrows) a whole mythical milieu, and works with complex imagery both in the proem and in the body of his poem (for example, the road, the bondage of necessity, circle and sphere).[29] To rule out of court by fiat the rich resources of literary expression, including allusion, is to impoverish interpretation. In fact Xenophanes, Heraclitus, Parmenides, and Empedocles are all verbal craftsman whose subtleties of expression cannot be ignored with impunity. If we would do justice to such composers we must be willing to read between the lines as well as to read the lines.

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[26] Vlastos, 1955, pp. 358–61; Kahn, 1979, pp. 206–7.

[27] B 1, B 2, B 50.

[28] *Poetics* 1447b9–20.

[29] Böhme, 1986, pp. 35 ff. supplies no less than fifty pages of poetic parallels for Parmenides' lines. Cf. also Bowra, 1937; Mansfeld, 1964, ch. 1.

None of this shows that Heraclitus influenced Parmenides. But it does show that a reading of B 6 and a questionable argument will not settle the debate. What positive evidence is there for a connection between Heraclitus and Parmenides? Specifically, why should we believe that the parallels exhibited in section 1 above are the product of more than chance and a shared literary culture? Most of the words in the parallel passages are everyday words which by themselves are not remarkable. Nevertheless, Stokes overstates his case when he argues in [iii] that common background and Ionic dialect are sufficient to account for the similarities. In particular the term *παλίντροπος* is a rare word found nowhere else in Presocratic literature but in the cited passages. There are a few occurrences in early poetry;[30] the relevant comparison class, however, is not poets but philosophers. Furthermore, the verb *σκίδνημι* is found nowhere else in Presocratic fragments but in the cited passages.[31] One could object that the parallels are really just a by-product of the philosophers using poetic diction. But poetic vocabulary is very extensive and diverse, even in early epic, and the fact that both philosophers draw on that vocabulary does not explain why they chose these particular words out of so many possibilities, but only why they might have chosen terms from epic vocabulary rather than more prosaic alternatives. We should not, then, overlook the fact that we have in our parallels two apparent cases of unique pairs of occurrences, *dis legomena*, in the comparison class.

Two other pairs of passages, [VI] and [VIII], can be related to more themes shared with other writers. In [VIII] we have the Ship of State, an image popular from archaic down to Hellenistic times.[32] The specific twist it receives in Presocratic literature is the interpretation of the ship as the cosmos. This image seems to occur first in Anaximander.[33] It is likely in this case that Anaximander provides a common source of inspiration for both Heraclitus and Parmenides. But this does not preclude a further influence from Heraclitus to Parmenides.

The motif of past, present, and future of [VI] appears already in Homer and Hesiod in the context of prophetic knowledge of all events.[34] The motif becomes popular among the Presocratics.[35] But this should not lead us to overlook the fact that a sea-change has gone on in the Presocratic adoption of the motif. In its epic and poetic occurrences, the participles of the verb 'to be' are in the plural. In Heraclitus – and Parmenides – they are in the singular, and the antecedent is not things in general (understood as events of importance to humans) but the cosmos and *τὸ ἐόν*, respectively. In this context we can be certain the Heraclitus is original because his statement is a conscious repudiation of his predecessors' method in natural philosophy. For all other natural philosophers had had as a (presumably unreflective) goal the explanation of how the cosmos came to be, whereas he maintains in B 30 that the cosmos is everlasting.[36] Thus we may safely exclude the possibility that any of the Milesians had already said what Heraclitus said: that the cosmos ever was, and is, and will be some one thing. When

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[30] In Bacchylides, Aeschylus, Sophocles, Euripides. See LSJ, s. v.

[31] Theophrastus *Sens.* 55, 56 uses the term in expounding Democritus. Since the term is 'rare in Prose' and 'not found in good Att[ic]' (LSJ, s. v.), it is likely Theophrastus is repeating Democritean terminology. But of course Democritus is writing up to a century later then our authors. Reinhardt, 1916, p. 207 n. 1 [pp. 207–9], while retaining the other two phrases of B 91b, rejects the phrase *σκίδνησι καὶ πάλιν συνάγει*. Kirk, 1954, retains them; Marcovich 1967, pp. 206–11, rejects the whole of B 91b.

[32] Alcaeus fr. A6 Lobel-Page; Archilochus fr. 56 Diehl; Pindar *P.* 1.86, 4.274; Theognis 671–80; Aeschylus *Th.* 2–3, 62, 758–65, 795–6, 1077–8; Sophocles *OT* 22–4, *Ant.* 163–4; Horace *Od.* 1.14; schol. Aristophanes *V.* 29; Plato *R.* VI.488a-e, *Plt.* 297a.

[33] A 15 with Kahn, 1960, pp. 44, 238.

[34] Homer *Il.* 1.70, Hesiod *Th.* 32, 38, Solon fr. 3.15, Euripides *Helen* 14.

[35] Anaximenes A7, Empedocles B 21.9, Anaxagoras B 12, Democritus *ap.* Ps.-Plutarch *Strom.* 7 (Diels, 1879, 581.11). (Heidel, 1913, p. 692, argues that the phrase is an intrusion in the Anaximenes passage; but the language seems inappropriate for a doxographer to introduce.)

[36] As most recent commentators maintain. Kahn (1979, pp. 134–7, 143–53), however, holds to the traditional view that there are periodic conflagrations and rebirths of the cosmos.

we filter Parmenides' corresponding statement through the tradition, we see, then, no possible forerunner but Heraclitus whom he might be criticizing. It is, of course, possible that he merely happens to pick the same phrase as a near contemporary, or rather, that he should take the traditional expression, twist it once to apply to the cosmos, and then twist it a second time to criticize the view of the cosmos implied by the first transformation. Possible, but not likely.

The image of quenching in comparison [VII] is interesting precisely because there is no apparent reason for Parmenides to choose this particular image. It makes no contact with the otherwise rich groups of images he constructs. Later Parmenides will introduce light or fire as one of his contrary elements in the Way of Opinion (B 8.56, B 12.1–2). But as yet he has said nothing of specific candidates for what-is. The verb *ἀπέσβεσται* is, in its context, a catachresis without visible justification. But if we read Parmenides B 8.21 in light of Heraclitus B 30, we find a new dimension. Fire is the symbol of Heraclitean world-process as well as the basic substance of the cosmos. Fire is, in a real sense, synonymous with process and change. According to Heraclitus B 30 the continuation of the cosmos precisely depends on fire kindling and being quenched by measures. When Parmenides says genesis *ἀπέσβεσται*, he calls up the rich associations of process with fire in Heraclitus, and, to use a modern word-play, immediately throws water on the whole conception. In the wider context, Parmenides' expression constitutes not an unmotivated misuse of an image, but a sly epigram which contemptuously dismisses a rival theory. Is this a case of a 'single passage of Parmenides which needs the postulation of a reference to Heraclitus to make it either intelligible or pointed'?

In [I] we have a striking parallelism in a word-play with two cognates, *δοκεῖν* and *δοκίμως*. It is possible that the word-play echoes a common source, Xenophanes B 34.4, *δόκος δ' ἐπὶ πᾶσι τέτυκται*, 'appearance is wrought over everything.'[37] The theme of unknowability is present in Xenophanes. But the juxtaposition of the two cognates is not. Furthermore, another parallel appears on the heels of the first. If the phase *πάντα διὰ πάντων* is not as striking as the word-play with *δοκεῖν/δοκίμως*, its importance is reinforced in Parmenides with the alliterative continuation *διὰ παντὸς πάντα περ ὄντα*. The catchy phrase is echoed in the Heracliteanizing Hippocratic treatise *Regimen* I: *τὸ μὲν γὰρ πῦρ δύναται πάντα διὰ παντὸς κινῆσαι, τὸ δὲ ὕδωρ πάντα διὰ παντὸς θρέψαι*.[38] The genitive *παντὸς* is singular as in Parmenides, but the word order is that of Heraclitus. The association is confirmed later in the treatise: *τοῦτο* [sc. *τὸ θερμότατον καὶ ἰσχυρότατον πῦρ*] *πάντα διὰ παντὸς κυβερνᾷ*.[39] Evidently later writers saw the phrase as a kind of Heraclitean signature. The parallel in the two lines of Parmenides B 1.31–2 to two different fragments of Heraclitus is a case of either astonishing coincidence or studied artfulness.

Finally, let us consider [II]. The paradox of being absent while present is an important theme in Heraclitus, often cashed out in terms of sleep-walking imagery stressing how unaware mortals are of the meaning inherent in everyday experiences.[40] We are tempted, however, to dismiss the parallel as neither linguistically compelling (since it consists of commonplace vocabulary) nor philosophically distinctive. But it is possible that there is much more in Parmenides' expression than meets the eye. Consider first a Heraclitean trope. Heraclitus often employs syntactic ambiguity to great effect. The ambiguity of his expression has been considered a demerit since Aristotle; only with Kahn's appreciation of his technique can we see its value.[41] Significantly, syntactical ambiguity appears in the first line of Heraclitus' prologue:

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[37] Cf. B 35: *ταῦτα δεδοξάσθω μὲν ἐοικότα τοῖς ἐτυμοῖσι …*

[38] Ch. 3 (vol. 4, p. 232, lines 8–10, W. H. S. Jones Loeb edn.). Cf. also *αὐταρκεά ἐστι πᾶσι διὰ παντὸς … , ibid.*, line 25; later, on the octave, *διεξιὸν διὰ πασέων*, ch. 8 (4.242.12).

[39] 10 (4.248.25).

[40] Heraclitus B 1, B 21, B 26, B 73, B 75, B 88, B 89.

[41] *Rh.* III.5.1407b14–18; Kahn, 1979, pp. 87–95, esp. 93–5.

B1. *Τοῦ δὲ λόγου τοῦδ' ἐόντος αἰεὶ ἀξύνετοι γίνονται ἄνθρωποι …*

How shall we construe *αἰεί*? Does it go with the preceding words: 'Although this account always holds true …', or does it go with the following words: 'men always prove uncomprehending'? Partisans have lined up on one side or another of the debate since Aristotle. But it is a mistake to take sides, as Kahn (1979, 93–5) shows. For the words are designed so that they can be taken either way. There is no need to argue the point here: that Kahn is right can be seen from multiple instances of the pattern designed by a consummate verbal craftsman. Schematically the pattern *ABC* can be read *AB*, *C* or *A*, *BC* to give two different, but equally intelligible and mutually supportive readings. The pattern retains to some degree the structure *ABA*, a pattern popular in Heraclitus,[42] inasmuch as *A* and *C* provide balanced elements for *B* to attach to. The pattern approximates a well-known classical figure, that of the chiasmus, *ABBA*. And many of Heraclitus' passages contain examples of chiasmus. But in Heraclitus the figure often only contains three elements, *ABA*, a distinctive idiosyncrasy.

If we put the opening words under a microscope, we may see the pattern from the outset: the first letters, undivided as they would be in an archaic manuscript, would appear as follows:

ΤΟΥΔΕΛΟΓΟΥΤΟΥΔΕ

That is, the pattern *ABA* emerges immediately with the key word *λόγου* bracketed by expressions that can be taken as demonstratives. Already the *Iliad* had set a pattern of announcing the main theme of a composition in the opening words. Favoring economical and epigrammatic statement, Heraclitus can state a message in the smallest possible lexical extent, three words:

B 119 *ἦθος ἀνθρώπῳ δαίμων.*

Because it can be taken with either of the words which bracket it in an *apo koinou* construction, the second word forms a kind of linguistic glue that holds the whole together: the *ABC* that can be read *AB*, *C* or *A*, *BC* becomes effectively *ABA* with the middle term uniting the two extremes in a unity of equivalence.[43] A similar surface pattern[44] is found embedded in a fragment discussed above in another context:

B 51. *οὐ ξυνιᾶσι ὅκως διαφερόμενον ἑαυτῶι ὁμολογεῖ· παλίνροπος ἁρμονίη ὅκωσπερ τόξου καὶ λύρης.*

Two contrasting concepts are joined together by a dative to be construed with both, joining opposites into a syntactic and hence semantic unity. The structural compression of the chiasmus can even bind unlike terms in a unity without a mediating term:

B 60. *ὁδὸς ἄνω κάτω μία καὶ ὠυτή.*

The pattern AB_1B_2A (together, no doubt, with the sense of the last three words) forces us to take the contrary middle terms *ἄνω κάτω* as one by juxtaposition. We see a pattern of expression

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[42] For example, B 25: *μόροι μέζονες μέζονας μοίρας λαγχάνουσι* (*ABBA*); B 22: *χρυσὸν οἱ διζήμενοι γῆν πολλὴν ὀρύσσουσι καὶ εὑρίσκουσιν ὀλίγον* (*ABCBA*). Note the emphatic location of earth in the center and gold at the extremes. The second half of B 10 combines a chiasmus of terms with a parallelism of syntax: *ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα*, stressing alternating changes. Similarly the second half of B88.

[43] The power of Heraclitus' expression can be gauged by comparing Democritus' jejune imitation, B 171.

[44] Of course the deep structure is different, with the extreme terms of the former passage consisting of nouns, those of the latter of verb forms linked by a verbal complement.

which, while not invented by Heraclitus, is used by him as a vehicle laden with unique power and vivacity – one in which a peculiarly Heraclitean philosophical message can 'show itself.' And in the more compressed pattern distinctive of Heraclitus, a sequence *ABC* can emerge as *ABA*, the surface pattern giving way to a deep structure emblematic of the unity of opposites.

With this background, let us return to Parmenides:

B 4.1. λεῦσσε δ' ὅμως ἀπεόντα νοῳ παρεόντα βεβαίως.

Immediately we see a pattern in the last five words: adverb, participle, noun, cognate participle, adverb. The pattern is broadly chiastic: *ABCBA*, with parallels established by morphology. The line is typically read: 'Behold things though absent, present to mind securely,' that is, *AB*, *CBA*. But the line is perfectly intelligible on another reading: 'Behold things though absent for [that is, from] the mind, securely present,' that is, *ABC*, *BA*. On this version the goddess bids the narrator to consider truths he has never considered before. The words not only echo Heraclitus' words, they are set in a Heraclitean idiom. If chiasmus is not uniquely Heraclitean, syntactic ambiguity by design in a chiasmus is.[45] The fact that the common element is a dative noun is even paralleled in Heraclitus B 51 and B 119.[46]

We have now briefly considered the more salient parallels between Heraclitus and Parmenides. Although no single parallel is convincing by itself, the accumulation of parallels is impressive. Stokes objects in his [i] that 'the cumulative effect of nothings is nothing.' But we have found some interesting grounds for suspecting a connection in almost every case. Hence I protest that the evidence of each single parallel is not negligible, and consequently the cumulative value of the whole set is considerable. In any case we observe the following situation: Parmenides not only anticipated the argument and thought of Heraclitus, but he divined the very expressions he would use, down to the specific vocabulary, the imagery, the word-plays, and even the characteristic tropes. In an intellectual *tour de force* unparalleled in the annals of philosophy and literature he conjured up an unknown opponent, maligned his originality, refuted his theory, aped his words and parodied his style.

Happy the chance that allows a philosopher to forestall in minutest detail his future rival! He refutes him before he speaks, satirizes his expressions before he utters them. Indeed, there is no comparable case in early Greek philosophy of so many parallels between philosophers in a stretch of 160 lines of text – except in the case of Parmenides and Empedocles, where the latter is undeniably imitating the former. But there may be other hypotheses that will explain the parallels. Perhaps Parmenides was a *welthistorischer Mensch* who, led on by the relentless progress of the Absolute, grasped the principles of the previous age and heralded the dawn of a new era. Perhaps Stoic necessity fated the conjunction of opinions. Perhaps Parmenides had a mystic vision in which a real goddess foreseeing the future revealed Heraclitus' philosophy to Parmenides. Perhaps Heraclitus was after all just repeating commonplaces other contemporary thinkers were saying in virtually the same words.

Or perhaps Parmenides had Heraclitus' text in front of him.

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[45] To the examples already noted, we might add B 12. The opening words ποταμοῖσι τοῖσιν αὐτοῖσιν ἐμβαινοῦσιν offer another chiasmus connected by an *apo koinou* construction: τοῖσιν αὐτοῖσιν can be construed with either the preceding word (the same rivers) or the following word (the same men), while the whole phrase is joined by the repeated suffix, which also creates the sound of a flowing river. The construction creates overtones of sound, meaning and structure which could never be captured in a paraphrase. (Cf. Kahn 1979, pp. 166–8.) Another interesting chiasmus is B 22, cited above in n. 42. It has not been noticed, to my knowledge, that γῆν can be taken as the object of διζήμενοι as well as of ὀρύσσουσι, giving a new twist to the epigram. Other Heraclitean chiasms offer alliteration and word plays: B 25, B 114.

[46] It may be objected that there are differences of usage in the three datives. But in chiasmus surface structure is at least as important as deep structure, and the similarities remain striking.

3 Philosophical Perspective

Thus far the reasons we have found for thinking Heraclitus influenced Parmenides are essentially literary ones. Motifs, themes, images, and words have been the data of the investigation. Insofar as the content of their respective philosophies have been involved, we have not needed to consult anything beyond a rather pedestrian level of understanding. This fact may offer the skeptic a second line of defense: even if one should prove by literary means that Parmenides had read Heraclitus, one is far from having demonstrated any meaningful philosophical influence. And indeed, it seems unlikely that there should be any. For Parmenides' philosophy offers a quantum leap in sophistication.

Such an argument may be inferred from one of the more influential modern studies of Parmenides. G. E. L. Owen concludes his 'Eleatic Questions' (1960) as follows:

> In sum: Parmenides' goddess does not claim that her cosmogony has any measure of truth or reliability in its own right; her subject-matter and her assumptions are not inherited from earlier cosmology; and she does not argue for a world that is spherical and everlasting. Parmenides did not write as a cosmologist. He wrote as a philosophical pioneer of the first water, and any attempt to put him back into the tradition that he aimed to demolish is a surrender to the *diadoche*-writers, a failure to take him at his word and 'judge by reason the much-contested proof.' (p. 75)

In the points he makes here, Owen has been vindicated by later scholarship. Parmenides is not another cosmologist with a new and bizarre cosmology to propound. Yet it is unclear how far we are to take his injunction to separate Parmenides from his tradition. Does the success of his study require us to abandon historical studies into influences on Parmenides? Owen does not say more. But his approach seems to give voice to the siren song of analytic philosophy of the most austere sort: here is an author who by his philosophical power shows that he transcends the mundane accomplishments of his predecessors and contemporaries. His is a timeless philosophy that can and must be examined on its own terms and without reference to its historical context.

This reading goes beyond anything Owen explicitly says. But it at least prefigures a good deal of subsequent work on Parmenides in which close studies of the verb *einai*, its syntax and semantics, and reconstructions of Parmenides' arguments often leave no room for historical and dialectical questions about the context of his discussion. One seems to glimpse a reprise of Stokes' argument, this time with the force and authority of the analytic tradition behind it. Real philosophy consists of an analysis of concepts, and that is just what we find with a vengeance in Parmenides. Why then should we muddy the waters with historical questions of context and influence?

In the first place, we should note that an atemporal approach to Parmenides is not borne out by Parmenides' text itself. Parmenides invokes a literary and religious tradition in his proem. To be sure, the device of a religious revelation is a posture, even if it does introduce some important themes. But Parmenides later invokes the Ionian philosophical tradition as well, and he does so precisely by creating a cosmogony and cosmology of his own. We do not need to take the cosmology at face value to recognize that Parmenides himself is very aware of his philosophical tradition and is, in some way or other, reacting precisely to that tradition. To rule the historical context out of court is, then, arbitrarily to reject a major division of Parmenides' composition and to misrepresent his own interest in his predecessors.

This brings us to a point of comparison. We could make a similar anti-historical argument about some of the more sophisticated and innovative philosophers of later tradition. Immanuel Kant, for instance, presents a rich and subtle theory which an analyst might dissect forever without exhausting its connections. Nevertheless, it would be historically false to claim that his philosophy can be fully understood apart from its historical context. In the case of Kant we are

fortunate to have his own testimony that he was awakened from his dogmatic slumbers by reading David Hume; and we can compare his pre-critical to his critical work to see what difference Hume's influence made. Now to admit that Kant philosophized in a historical framework does not at all entail that we should not read Kant's critical work systematically and use all the analytical tools at our disposal to understand his thought. But it does reveal that analysis does not always tell us everything we need to know. In particular, it may not tell us about the motivations that shape a philosopher's whole enterprise. And here a little historical insight can go a long way to understanding a philosopher. Nor should we limit our historical inquiry only to immediate predecessors. Not only Kant, but all modern philosophers are heirs of Descartes to such an extent that we do not know what modern philosophy would have been like without Descartes. By comparison, Parmenides acknowledges his own philosophical tradition by dedicating the second half of his poem to cosmology. That he prefaces his cosmology with disclaimers and that he uses cosmology to very different ends from those of his predecessors in no way detract from the fact that he is reacting to problems raised by philosophical cosmologists.

I conclude, then, that nothing in philosophy in general or in Parmenides in particular precludes us from seeking historical influences on Parmenides' thought. Moreover, the analogy between Parmenides and Kant is suggestive in ways we have not yet explored. Why does a philosopher abandon the prevalent mode of philosophizing; why does he change not only the focus but the method of philosophy – why does he foment a Copernican revolution? In Kant's case it was because an acute philosopher in recent memory had challenged all that the tradition held dear, and done so by exploiting weaknesses inherent in the tradition itself. Whereas the tradition sought to build knowledge on secure foundations, Hume saw that the foundations themselves could not provide security. It took a philosopher of the highest caliber even to appreciate the strength of Hume's arguments, much less to provide a constructive response to them. In the person of Parmenides early Greek philosophy underwent its Copernican revolution. Parmenides imbibed cosmology and natural philosophy but created proto-logic and proto-metaphysics. Is there a Hume in his background?

We return to the parallels of Heraclitean and Parmenidean rhetoric. Are they coincidences? Ptolemaic astronomy was full of coincidences: it was a coincidence that the center of the epicycles of Mercury and Venus were synchronized with the sun. It was a coincidence that they were inner planets. But what one theory saw as coincidence another theory saw as evidence. In retrospect we can see that the large role coincidence played in the classical theory signaled the explanatory weakness of the theory.

4 Parmenides' Dialectical Opponent

The argument that Parmenides is reacting to Heraclitus would be strengthened if we could show from his text that we must posit Heraclitus, or some figure indistinguishable from Heraclitus, as a target for his polemic. The cosmology Parmenides constructs in the Way of Opinion seems to be sufficiently unique in its principles that we cannot derive it from any previous philosopher; all we can say with certainty is that he regards his rivals as thinkers who propound cosmologies.

It is, however, instructive to consider who might be the thinkers who commit the errors which his Way of Truth avoids. Parmenides makes no overt claim that anyone consciously adopts the path that it is not. And, with reason, most commentators have thought that the mortals who are guilty of following that path do so unwittingly, not as part of a program of inquiry.[47] What he does accuse mortals of doing is confusing being with not-being (B 6.4–9). It

[47] For example, Owen, 1960, p. 56: 'There is no suggestion that anyone takes the first wrong road …'

appears, then, that the confusion is their original mistake; but the mistake presupposes a more basic error, that of following the way that it is not. From the standpoint of diagnosis, Parmenides could say that their basic fault was trusting in the way that it is not, but that the symptom of the fault was to be found in their confusion of being and not-being.

What evidence can Parmenides provide that someone actually falls into the trap of intellectual pursuits that at first sight seem so implausible? Who would say that to be and not to be are the same and not the same? What evidence is there – more to the point, what evidence does Parmenides give us – that 'mortals' are guilty of confounding being and not-being? Parmenides does not offer any examples, nor does he interpret the criticism in such a way as to render comprehensible the charge. We can of course (like many modern interpreters) try to extrapolate an argument from later remarks. But his claim appears at a critical juncture of the argument and has to motivate the whole rejection of traditional thought. He surely cannot expect us to first comprehend his theory of what-is and then infer for ourselves the argument against other theories. The sequence of his own remarks shows that the intended order of exposition is much as in modern inquiries: survey of previous theories, criticism of those theories, proposal of a new theory, argument for the proposal.

It is in such a situation that an appeal to allusion can help out. We have already seen reasons to believe that Parmenides is making allusions to Heraclitus' theory. Of course B 6 is the *locus classicus* of appeals to allusion. Allusion is a powerful form of communication precisely because it allows the text to bear more meaning than the literal sense would allow. If linguistic parallels point us to Heraclitus, we can use what we know of his theory to fill out the objection. If Heraclitus says, or seems to say, something like the view that Parmenides attributes to mortals, he immediately provides evidence that the criticism is based on a real theory and hence shows that Parmenides is not attacking a straw man. Does Heraclitus, then, express something like the view Parmenides criticizes? Parmenides says,

> … they are borne
> deaf as well as blind, dazed, undiscerning masses
> for whom to be and not to be are thought to be the same
> and not the same, and the path of all is backward-turning. (B 6.6–9)

With this compare the following observation of Heraclitus:

> The same thing [in us (?)] are living and dead, waking and sleeping, young and old; for these things having changed are those, and those again having changed around are these. (B 88)

Note that living and dead just are the human states that correspond to being and not-being, respectively; Heraclitus pronounces them to be the same. Moreover, he gives the reason for their being the same: one thing turns into its opposite. Here we must make a clarification: the opposites do not turn into one another, but rather, presumably, a subject goes from one state to the opposite state, that is, the opposite states succeed one another in a subject.[48] Heraclitus does not expressly state that the opposites are not the same. But of course his remarks presuppose the non-identity of the opposites, which forms the background against which we can claim that the things changing subjects in question are the same.

If Heraclitus is the target, why does Parmenides blame the 'undiscerning masses'? Because Heraclitus embraces the paradox of saying opposites things are the same, he exposes the folly of admitting change. All those who allow change are destined to fall into the same trap. Hence Heraclitus can become an object lesson in the perils of allowing change. By merely referring to him Parmenides can conjure up an argument concerning the consequences of allowing change.

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[48] A point that would be made later by Plato, *Phd.* 103a-b.

By emphasizing the paradoxical conclusions of Heraclitus, he can tacitly accuse Heraclitus of falling into an unacceptable error. With a few words, then, Parmenides can turn Heraclitus' position into a *reductio ad absurdum* for a whole set of philosophical theories as well as for their unreflective counterparts – the views of the masses.

Heraclitus' views, expressed in B 88 are, moreover, not an aberration, but part of a deeply held theory. Similar in content and implication is B 62:

> Immortal mortals, mortal immortals, living the death of these, dying the life of those.

By juxtaposition and chiastic inversion Heraclitus equates mortality with immortality and life with death. Among the many possible applications of Heraclitus to contexts as different as theology and psychology, are those to physical phenomena.[49] Basic substances by dying give birth to other substances, as water becomes earth and earth water (B 76, B 36 with B 31A). But the presence of the different substances in the world is preserved just by the balance of transformations (B 31B), so that, for instance, by the opposed processes of kindling and extinguishing we may say that fire is 'ever-living' (B 30). Ultimately there would be no cosmic immortality without mortality, or mortality without immortality. There would be no being without not-being, or not-being without being. In a punning epigram Heraclitus observes:

> The name of the bow is Life, but its work is Death. (B 48)

The term for bow, *βιός*, is identical but for an accent to the term for life, *βίος*. By playing on the word he again stresses the fact that life and death are inextricably connected. In another double entendre Heraclitus introduces an explicit paradox:

> One the wise alone would and would not be called by the name Zeus/ Life. (B 32)

By using the word *Ζηνός*, an alternate genitive case-form of Zeus and homonym of the verb infinitive 'live,' Heraclitus can suggest that the ruling power of the world is and not the same as Life.[50]

Heraclitus, it appears, provides exactly the kind of message that might count as a target for Parmenides' attack. He cultivates the aura of paradox, and he plays with the equivalence of life and death, which is to say, of being and not-being. His radical acceptance of change, together with a willingness to draw paradoxical implications makes him an ideal target for refutation. His characteristic style and unique vocabulary make it easy to allude to him, while his peculiar doctrines seem almost self-refuting. All in all he seems the ideal target for an oblique attack. If we do not posit Heraclitus as a target, Parmenides' argument runs the danger of becoming aimless. No one else obviously confounds being and not-being, and certainly not to the point of making them the same and not the same. Parmenides should show us how the masses commit the alleged error, and in what context. We may be able to discover what the error is from later remarks; but if he expects us to divine the targets of his criticism only after we understand his positive argument, he loses the motivation for introducing the constraints on what-is. He should, in other words, first convince us that the way of two-headed mortals is to be avoided at all costs and then introduce his own theory about what-is.

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[49] For insightful interpretations of this fragment, which he calls 'Heraclitus' masterpiece, the most perfectly symmetrical of all the fragments,' see Kahn, 1979, pp. 216–20.

[50] For comments on meanings of the fragment and ambiguities of the expression, see Kahn, 1979, 267–71.

If we posit a known target who enunciates the doctrines to be criticized (or some reasonable facsimile thereof) and who fits with the allusions, we can see that Parmenides has not finessed a step in his argument: the opposing view is expressed in language echoing an actual opponent. The text can be filled out from actual statements by the unnamed philosopher to provide a theory at once vulnerable to the criticisms and worthy of refutation. In the context of a Heraclitean background, Parmenides' argument becomes relevant and complete. He targets an opponent, he identifies that opponent, making skillful use of literary conventions in the genre he has selected to express his views, and he points to the logical failures of his opponent's theory – no doubt as a representative of a class of similar theories – all in at most six hexameter lines (B 6.4–9). He does this without mentioning names, detailing theories, or reconstructing arguments, and while heaping scorn on his opponents. From a philosophical point of view his treatment of the opposition is far from satisfactory. Yet for all its shortcomings, we can discern in it the basic position he wishes to reject, what faults he sees in it, and why he thinks it should be rejected. For him, Heraclitus provides an object lesson in what is wrong with Ionian philosophy.

Understood in this way, Heraclitus becomes the *reductio ad absurdum* of Ionian philosophy: if you sow Ionian principles you will reap Heraclitean paradoxes. If everything is changing, everything has contradictory properties and nothing is knowable. The radical solution is to deny change altogether by revealing that it relies on impossible presuppositions. Parmenides has, I would maintain, misunderstood Heraclitus' theory: Heraclitus uses paradox to point us to a deeper unity and coherence, rather than embracing a contradiction at the heart of reality.[51] Yet Heraclitus' sayings are notoriously dark, and many generations of readers would take his thought as Parmenides had.

What is crucial in this story is the route from Ionian philosophy to Eleatic philosophy: Heraclitus as both exemplar and critic of Ionian philosophy reveals the flaws inherent in the tradition. But because of his indirect method of arguing through imagery, paradox and symbol, his own radical solution to the problem can easily be missed and his position can be taken as embodying a logical catastrophe.[52] The story shows what could have motivated Parmenides to make a radical departure from the well-trodden path of cosmology. In Heraclitus' change – in the form of the coming-to-be of substances – becomes the main theme of Ionian philosophy; change entails the Unity of Opposites, easily misunderstood as the Identity of Opposites; and the Identity of Opposites entails contradiction. Parmenides accuses Heraclitus of conflating being and not-being, and traces his error back to an illicit quest for what-is-not. His theory is a response to a radical account of change which seems to lead to contradiction. Without Heraclitus there would be no path from change to contradiction, nor would change be the obvious theme of Ionian cosmology. After Heraclitus the connections seem so obvious that an attack on change seems to destroy the possibility of Ionian cosmology altogether. Heraclitus can become the disembodied voice of two-headed mortals.

In this story Heraclitus was to Parmenides as Hume to Kant. The radical critic awakens the innovative philosopher from his dogmatic slumbers. To make this comparison is to detract from neither Heraclitus nor Parmenides. It is, I hope, to make the development of early Greek philosophy more rational and perspicuous. In the end this story is just that: a story, a speculative reconstruction. But I have tried to show that there are clues in Parmenides' text to support the reconstruction. The alternative is not, as some would have it, a sanely non-commital reconstruction that avoids historical speculations, but rather a misplaced exercise that finesses the most important historical question we could ask of Parmenides: what moved him to so alter

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[51] See Graham, 1997.

[52] As it was by Plato (*Tht.* 183a) and then Aristotle (*Top.* VIII.159b30–3, *Ph.* I.185b19–25, *Met.* IV.1012a24–6, a33 ff.), and consequently by the doxographical tradition.

his philosophical perspective that he was no longer a player in the same game as his predecessors? Not, surely, a misguided understanding of existence or predication, since we can still ask what led him to perceive being as problematic in the first place. The present interpretation is based on a truth that applies to the history of philosophy no less than to ontology: that nothing can come from nothing. Great philosophers do not react to non-existent problems nor depart from well-worn paths of inquiry for non-existent reasons. The missing link in our understanding of Parmenides is Heraclitus.[53]

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[53] I read versions of this paper at Brown University in autumn 1995 and at the University of Texas at Austin in March, 1998. I am grateful for comments from participants in both sessions, and in particular challenges from Alexander Mourelatos and Charles Kahn, and for suggestions from Stephen White.

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Chapter 4

Parmenidean Being/Heraclitean Fire

Alexander Nehamas

> When the rest of the philosophic folk rejected the testimony of the senses because they showed multiplicity and change, [Heraclitus] rejected their testimony because they showed things as if they had permanence and unity. Heraclitus too did the senses an injustice. They lie neither in the way the Eleatics believed, nor as he believed – they do not lie at all.
>
> Friedrich Nietzsche, *Twilight of the Idols*

The facts are these.

Parmenides and Heraclitus lived at about the same time, at opposite ends of the Greek-speaking world. Parmenides constructed a rigorously abstract logical argument in vivid verse. Heraclitus composed a series of striking paradoxes in obscure prose. They are both difficult to understand. They are both arrogantly contemptuous of their predecessors as well as their contemporaries, to whom they usually refer as 'the many' or 'mortals.'[1] They have been taken to stand at opposite philosophical extremes: Parmenides is the philosopher of unchanging stability; Heraclitus, the philosopher of unceasing change.

The rest is speculation.

That is not a criticism. Most of the speculation is not idle: it is interpretation, based partly on the texts and partly on a general sense of the development of early Greek philosophy. But interpretation it is and, as such, each of its aspects affects and is, in turn, affected by every other. One of these is the idea that, though close contemporaries, Heraclitus and Parmenides wrote successively and that whoever wrote later criticizes the other: either Heraclitus denounces Parmenides[2] or Parmenides attacks Heraclitus.[3] Testimony to the continuing influence of the ancient *diadoche*-writers, that assumption bears directly on the interpretation of both philosophers. In particular, if, as most people today believe, Parmenides is answering Heraclitus, we need to find in Heraclitus views that Parmenides, in turn, explicitly rejects in his poem.[4]

I want to question this assumption – not necessarily to reject it, but to show exactly how it affects our interpretation of both Parmenides and Heraclitus.[5] I would also like to outline, in

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[1] Heraclitus also names some of the targets of his criticisms (for example, B 40, B 42, B 56, B 57, B 81, B 106, B 129).

[2] That is the view of Reinhardt, 1916.

[3] A notable exception is Stokes, 1971, pp. 109–23, who believes that each can be understood quite independently of the other. For full references to the debate, see Daniel W. Graham, 'Heraclitus and Parmenides' (in this volume, pp. 27–44). Graham offers a strong defense of Patin's thesis to the effect that Parmenides is directly concerned with criticizing Heraclitus in his poem.

[4] More cautiously, we need to assume that Heraclitus must at least have appeared to have held views which Parmenides rejects in his poem.

[5] It is an assumption that is important to two of the best recent studies of Parmenides and Heraclitus: Curd, 1998 and Graham, 1997, as well as to the latter's 'Heraclitus and Parmenides.' Both, not incidentally, are as deeply indebted to A. P. D. Mourelatos as I am in my own inadequate celebration of his work, which this essay constitutes.

barest form, an alternative understanding of their thought which takes them to write in parallel and not in reaction to one another.[6]

Of course, Heraclitus and Parmenides hold fundamentally opposite views on many matters. But opposition need not always spring from direct rejection and disagreement. It can also emerge out of different strategies for solving common problems and within a background of shared views. But the assumption that Parmenides is in fact criticizing Heraclitus, along with the view that the choice between Stability and Change is as stark as Plato, for his own reasons, believed that it is, makes it impossible to see that Parmenides' and Heraclitus' views often overlap. Nevertheless, they do.

Here is one clear case. Xenophanes, adapting a set of contrasts from archaic poetry,[7] introduced the theme of the limits of human knowledge to Greek philosophy. Our evidence is limited and the details of his view are obscure. He seems to have thought that time and effort may allow us to know better (*ἄμεινον*, B 18), but it is not clear how perfect our knowledge can become. No one, he tells us, will ever fully understand what he has to say; even if people happen to chance on that knowledge, they will not be aware of it (B 34). Does he include himself among them? We don't know. But we do know that he introduces the term '*δόκος*' to refer to the usual cognitive state in which human beings find themselves and that he believes that we are generally aware not of true facts but of some sort of appearances (*ὁππόσα … πεφήνασι εἰσοράασθαι*, B 36; cf. B 35).

Parmenides adopts Xenophanes' idea that human knowledge is limited. And though he develops it in a direction Xenophanes himself had probably never imagined, that direction duplicates Heraclitus' treatment of the theme. Xenophanes may have denied himself full knowledge of the subjects he addressed, but Parmenides' goddess tells the *kouros* who is the hero of his poem absolutely 'everything' there is to know (B 1.28–32, B 2, B 8.50–2) just as Heraclitus claims for himself complete possession of the *logos* (B 1, B 2) and the knowledge represented by *to sophon* ('the wise,' B 108). And while Xenophanes may have believed that, with effort, everyone's knowledge may improve, neither Parmenides' 'mortals' nor Heraclitus' 'many' are capable of acquiring the understanding the two authors claim for themselves. The gap between the wise and the ignorant is now explicit and deeper than it has ever been. The wise are not themselves gods, but they know what gods know and humans don't:[8] intermediate between the divine and the everyday, they occupy, in fact, the space of philosophy. Parmenides and Heraclitus are the first to create that space, to envisage what they are doing as a radically new endeavor. On that issue, they are at one.

But they are also at one on another, much larger issue. What they both believe their new endeavor has given them is a radically new knowledge, or a knowledge of something radically new. That is the most important thing they know, the reason they are so different from everyone else. They have discovered a new realm, which no one has imagined so far and few are likely to understand even now. Completely distinct from the world that surrounds us and which people believe exhausts what there is, that realm is, in a word, reality. Heraclitus and Parmenides are equally responsible for distinguishing it from what, by contrast, now becomes mere appearance.

That the distinction between 'the heart of persuasive truth and the opinions of mortals' (B 1.28–30), between appearance and reality, is the centerpiece of Parmenides' thought needs no argument. But I also believe – and for that I do need to argue – that the same distinction is

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[6] My view of the relationship between Parmenides and Heraclitus is similar to that of Stokes, 1971, though the implications I draw from it for my interpretation of their views differ from his in many ways.

[7] The knowing poet versus his ignorant rivals: Pindar, *Ol.* 2. 86–8; the knowing Muse versus the poet she inspires: *Il.* 2. 485 ff., Pindar *Paean* 6.51 ff; gods versus humans: Theognis, 141–2.

[8] Cf. Heraclitus B 102: *τῷ μὲν θεῷ καλὰ πάντα καὶ ἀγαθὰ καὶ δίκαια, ἄνθρωποι δὲ ἃ μὲν ἄδικα ὑπειλήφασιν ἃ δὲ δίκαια*; and, among others, Parmenides B 1.26–7: *οὔτι σε μοῖρα κακὴ προὔπεμπε νέεσθαι/ τήνδ' ὁδόν* (*ἦ γὰρ ἀπ' ἀνθρώπων ἐκτὸς πάτου ἐστίν*).

equally central to Heraclitus. Whatever their other differences, Heraclitus and Parmenides agree that the world we perceive is fundamentally different from the world as it really is.

The beginning of my argument is to remind you of the well-known fact that Heraclitus' *logos* is not simply an account of the world, but the principle according to which everything occurs: 'Everything … happens according to this *logos* … and I distinguish each according to its nature and say how it is' (B 1). But nature is not easy to find (*φύσις κρύπτεσθαι φιλεῖ*, B 123) and wisdom reveals (or consists in) something different from everything else (*γινώσκειν ὅ, τι σοφόν ἐστι, πάντων κεχωρισμένον*, B 108).[9] The themes of the *logos* and the wise are combined and yield the principle that 'listening not to me but to the *logos*, it is wise to agree that all is one' (*ἓν πάντα εἶναι*, B 50) – a truth that ordinary knowledge certainly is not capable of revealing.

This shows that both Heraclitus and Parmenides distinguish sharply what only the wise know from what all others believe. In almost identical words, which recall Xenophanes B 34, they characterize the latter as 'seeming things,' wrongly and ignorantly believed to be true. Heraclitus writes *δοκέοντα γὰρ ὁ δοκιμώτατος γινώσκει, φυλάσσει* (B 28), while Parmenides says that the error of mortals is to think that *τὰ δοκοῦντα χρῆν δοκίμως εἶναι* (B 1.31–2).[10] It may of course be that the 'wisdom' of Heraclitus is just what Parmenides denounces as 'mortal opinion,' and that Parmenides, as Graham has argued (this volume, p. 35), is simply using Heraclitus' own vocabulary against him. But, instead of following that path, I now bid you consider another possibility: that Heraclitus and Parmenides share not only some epistemological views but also an ontological picture; that their enterprise is common; and that the views of Heraclitus are not what Parmenides' goddess denounces.

The linguistic parallels between Heraclitus and Parmenides are incontestable: Graham has established that they are more extensive than we often think (this volume, pp. 29–32). But, as he himself points out, a parallel does not in itself constitute an allusion: an allusion requires an intention and it makes a particular point. In the case of Heraclitus and Parmenides, that point should generally be negative: Parmenides should be using Heraclitus' words against him. But consider the word-play on *δοκοῦντα* ('things that seem, that are reputed to be so'), *δόκιμος* ('person of reputation') and *δοκίμως* ('securely, with a solid reputation') in the two passages of the previous paragraph. Apart from the fact that the word-play is rather obvious, Parmenides uses it to make the same point as Heraclitus:[11] the run of common people is totally enclosed within the realm of appearance and seeming. Even if Parmenides knew and disagreed with Heraclitus' ideas, that disagreement is not apparent here. On the contrary, these two statements place our authors together, on the same side of the divide between the wise on the one hand and the rest of the world on the other. Parmenides is not disagreeing with Heraclitus, and, to that extent, the linguistic similarity between his verse and Heraclitus' prose is unlikely to constitute an allusion to it.[12] Similar considerations apply to the parallelism between Parmenides' *λεῦσσε*

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[9] *κεχωρισμένον* need not mean 'set apart' (so, most recently, Kahn, 1979, p. 42, and Robinson, 1987, p. 65: it could as easily, and more plausibly, mean 'different'; cf. Marcovich, 1967, p. 441 and LSJ s. v. II, with a parallel in Herodotus 5.61.2, a possible antecedent in Xenophanes B 23 and a possible echo in Plutarch, *Coriol.* 38.4: *ἀνόμοιός ἐστι καὶ παρηλλαγμένος* (sc. *ὁ θεός*). Heraclitus is thus claiming that what wisdom reveals, the unity of everything, is radically different from what ordinary views of the world suggest. See Mackenzie, 1988, p. 11 n. 24.

[10] 'The man of the most secure reputation (still) knows and values (only) seeming things'; 'how the things that seem have to be most securely.'

[11] That may, incidentally, explain the occurrence of the same linguistic forms.

[12] Graham argues that the further similarity between Parmenides B 1.32, *διὰ παντὸς πάντα* and Heraclitus B 41, *πάντα διὰ πάντων*, makes the parallel between them 'a case of either astonishing coincidence or studied artfulness' (this volume, p. 35). He opts for the latter. I am not convinced: the phrase is common, and its context in Parmenides (it is part of the error of mortals which we shall discuss in detail below) is totally different from its context in Heraclitus (where it refers to the 'plan' (*γνώμη*)

δ' ὅμως ἀπεόντα νόῳ παρεόντα βεβαίως (B 4) and Heraclitus' παρεόντας ἀπεῖναι (B 34). Though the linguistic similarity is undeniable, its philosophical significance is belied by Heraclitus' own description of the expression as a *φάτις*, a commonplace, which, as a matter of fact, Parmenides puts to a totally different use.[13] What, then, could the purpose of the allusion be? Had Parmenides been alluding to Heraclitus' description of the common people, he would have surely agreed with him. As it is, he uses similar words to discuss a completely unrelated subject. The parallelism does not constitute an allusion: not only does it fail to make a negative point, it makes no point at all.

I cannot address here all the considerations Graham offers to support his conclusion that 'Parmenides had Heraclitus' text in front of him' (p. 37). But even if, on purely linguistic grounds, we granted that conclusion, it would not follow that Parmenides must have been criticizing Heraclitus. The two claims are distinct: having read a text, though necessary, is not sufficient to turn you into a critic. For the moment, then, I will continue to investigate the possibility that Parmenides is writing independently of Heraclitus.

We have seen that Parmenides and Heraclitus claim that only they are aware of the nature of the world. Heraclitus consistently describes that world by means of a set of contrasts between the common and the private, between wakefulness and sleep. The *logos* of course is common (*ξυνός*), though the many live thinking private thoughts (*ἰδία φρόνησις*, B 2). The 'divine law,' which is closely related – if not identical – to the *logos*, is also common (B 114). And though Heraclitus must think that in comparison to the one who knows the many, even when they are awake, are like the sleeping, the waking world is still one and common,[14] while sleepers turn to a private world of their own (*τοῖς ἐγρηγορόσιν ἕνα καὶ κοινὸν κόσμον εἶναι, τῶν δὲ κοιμωμένων ἕκαστον εἰς ἴδιον ἀποστρέφεσθαι*, B 89).[15]

What do we know about that common world? Heraclitus answers, 'The world that is the same for all, neither any god nor any man has made, but it always was and is and will be an ever-living fire, kindled in measures and extinguished in measures' (*κόσμον τὸν αὐτὸν ἁπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησεν, ἀλλ' ἦν ἀεὶ καὶ ἔστιν καὶ ἔσται πῦρ ἀείζωον, ἁπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα*, B 30). This crucial passage contains another striking linguistic parallel between Heraclitus and Parmenides. For where Heraclitus writes that the common world *ἦν ἀεὶ καὶ ἔστιν καὶ ἔσται*, Parmenides is famous for insisting of Being, *οὐδέ ποτ' ἦν οὐδ' ἔσται, ἐπεὶ νῦν ἔστιν* ('nor was it ever nor will it be, because it is now,' B 8.6). And this linguistic parallel seems to have a definite purpose: where one affirms, the other denies.[16]

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through which everything is steered or governed). To see such a juxtaposition as an allusion presupposes that Parmenides was just ransacking Heraclitus' text for any expression that might possibly remind his readers of the latter, without any concern for the point that such reminding could possibly have.

[13] Parmenides seems to have written 'Gaze on absent things with your mind as present steadily'; Heraclitus castigates the many: 'Not understanding, they are like the deaf even after they have heard. The saying bears witness to them: absent while present.' Graham (this volume, p. 37) does show how Parmenides' syntax exhibits some of the complexities of Heraclitus' style well discussed by Kahn, 1979, but such complexities seem to me common in archaic as well as classical Greek prose and poetry.

[14] Nothing, of course, prevents Heraclitus from thinking of sleep both literally and metaphorically. In the first case, the private world is the world of dreams; in the second, the world of seeming.

[15] A magnificent passage suggests that the distinction between waking and sleeping, life and death, is not absolute: 'A man strikes a light for himself in the night, when his sight is put out. In life, he touches the dead when asleep, the sleeping when awake' (B 26). Kahn, 1979, p. 215, interprets this as a metaphor of enlightenment, a cyclical pattern ending in 'a return to the initial daytime state, but now 'in touch' with all that precedes.' I myself find the thought much less optimistic, suggesting that life contains in itself a kind of death – a play on the traditional idea of Morpheus as the brother of Thanatos.

[16] Stephen White has suggested to me that the interpretation of Heraclitus B 30 offered here might gain support from construing 'fire' and not 'the world' (as would have been more natural) as the subject of its second clause. On that reading, the passage would prepare its reader to expect 'the world' as subject

The strange thing, however, is that, instead of expressing a disagreement, affirmation and denial here make the same point! Parmenides denies that Being is generated; Heraclitus asserts that the common world was not created. The two passages are grammatically opposed but philosophically harmonious. Parmenides' denial is equivalent to Heraclitus' affirmation; that is made plain by Melissus, who explicates Parmenides' view affirmatively: 'It always was whatever it was and always will be'; 'since then it did not come to be, it is and always was and always will be.'[17] Heraclitus' common world, of which the many are as unaware as Parmenides' mortals are unaware of Being, is always the same. And now the similarities between Parmenides and Heraclitus acquire a new urgency: they become ontological. Heraclitus, too, believes in a world that is separate from the private, seeming world of the many, a world that is uncreated and unchanging.

Heraclitus' passage, in its emphatic assertion, seems to be directed against someone else's wrong view. Who is the target here? I believe that Heraclitus' opponent is the same as Parmenides': the Ionian view that the present world (*κόσμος*) has arisen out of a single and undifferentiated principle from which, in its multiplicity and change, it is radically different.[18] The *kosmos* of Anaximander emerges out of the 'boundless'; that of Anaximenes comes from air. But Heraclitus claims (*pace* Simplicius *In Phys.* 1121.12) that the *kosmos* was never created. And if Heraclitus' common world is the world of reality, then his point is similar to that of Parmenides, even if their language is diametrically opposed:[19] the real world is not generated; principles do not change in any way; Ionian cosmogony is rejected.[20]

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in the second clause only, as is so common in Heraclitus, to frustrate that expectation and to introduce a different grammatical subject, which, when one thinks about it, turns out actually to refer to the very same thing after all: for, as White writes, fire 'embodies' the permanent order of the world. That is a very interesting idea. However, I think that it is difficult to take 'fire' as the subject of the second clause of B 30. In addition, I suspect that if we did, B 30 would be saying that fire exists, has existed and will exist forever. But that is not, as far as I can see, the point Heraclitus is making, nor is it the point of Parmenides' insistence that Being neither was nor ever will be. The verb 'to be,' as I shall argue below, is as predicative in Parmenides as it is in this passage of Heraclitus. But I agree with White, to whom I am grateful for discussing this issue with me, that Heraclitus' point, though made through an 'is' of predication is that the common world is in the end identical with fire.

[17] Melissus B 1, '*ἀεὶ ἦν ὅτι ἦν καὶ ἀεὶ ἔσται*'; B 2, '*ὅτε τοίνυν οὐκ ἐγένετο, ἔστι τε καὶ ἀεὶ ἦν καὶ ἀεὶ ἔσται*.' The translation of B 1, which follows Kirk, Raven and Schofield, 1983, p. 393, shows how an apparently existential statement has a natural predicative interpretation.

[18] Graham, 1997, pp. 24 ff., has called this 'the Generating Substance Theory.' I would prefer to use 'principle' instead of 'substance,' since the notion of substance is a descendant of Ionian physics and of the criticisms to which it and its successors were exposed in the course of early and classical Greek philosophy. I am immensely indebted to this excellent essay. I accept many of Graham's conclusions. I differ from him in thinking that Heraclitus' criticism of the Ionians is even more radical than he claims, since it depends on the ontological distinction between appearance and reality which Graham finds only in Parmenides, whom he considers Heraclitus' successor.

[19] I say 'similar' rather than 'the same' because I tend to agree with Mourelatos, 1970, that Parmenides is exhibiting here an elementary awareness of the tenselessness of the 'is' of 'speculative' or 'strong' predication (see below), whereas Heraclitus does not.

[20] One might argue that since neither the boundless nor air seems to be generated, Heraclitus is repeating the Ionian position instead of rejecting it. But the Ionians (whom it would be more appropriate to call 'Milesians' in order to distinguish them from Heraclitus, who refuses to accept their cosmogony) believed that their principle itself was transformed into the various objects that constitute the world around us. They provided no account of the relationship between that principle and the world of experience: were they distinct? was the principle the ancestor of the world of experience? was it its material constituent? In contrast to many interpreters (most recently Barnes, 1979) I believe that the Milesians did not accept what is now known as 'material monism,' the view that the world of experience *consists of* a single underlying substance, which presupposes an arsenal of Aristotelian ideas developed

But how could Heraclitus agree with Parmenides against the Milesians if, in contrast to Parmenidean stability, his world is one of continual change? That is surely part of the import of his identification of the world with fire, 'the substance that is not a substance, the substance that is a process.'[21] That is true. Yet, through the sort of paradoxical twist that has become his signature, Heraclitus turns around and allows reality a stability of its own. Though fire stands for continual change, change itself is unchanging: it always was, and is, and will be; it never ceases. Though nothing *in* the world is stable, the world itself – the process through which everything is constantly changing – is itself constant. It is instability itself which, for Heraclitus, is stable.

Such an interpretation brings Heraclitus close to Parmenides. For one way of understanding the 'signposts' along the way of Being which Parmenides describes in B 8 is to take them as adverbs that characterize a particular and very restrictive way of being. The signposts then tell us what conditions must be met if a subject is to be something in the appropriate way, if it is to be really something, and thus be a real subject. And to be really something, *F*, is to be *F* – B 8 tells us – ungenerably and imperishably, wholly, only and indivisibly, unchangingly, perfectly and completely. Let us now see how that reading brings Parmenidean Being and Heraclitean Fire together.

Parmenides uses 'being' to express a very strong notion, which Aristotle eventually was to capture with his concept of 'what it is to be.'[22] To say of something that it is *F* is to say that *F* constitutes its nature. That assumption makes reasonable sense of a number of the claims of B 8. For example, consider the claim that what-is is one. On the strong understanding of predication, this becomes the claim that to be really something is to be only one thing. That is, to be *F* at all is to be only *F* and nothing else. The proof is as follows.

Suppose that something, *X*, is *F*. On the assumption that 'is' is equivalent to 'is what it is to be,' this becomes

1 *X* is what it is to be *F*.[23]

Now suppose that that *X* is also *G*, that is,

2 *X* is what it is to be *G*.

Are *F* and *G* the same, are they one? If they are, then *F* is *G*,[24] that is,

3 *F* is what it is to be *G*,

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precisely in order to reply to the problems created by Milesian cosmology. My own position, for which I cannot argue here, is that they simply did not address the question of the precise relation between their principle and the world of experience, that Parmenides' criticism of Milesian cosmology is at least partly motivated by its vagueness in that regard, and that concepts like substance, matter and constitution were developed gradually in order to come to terms with the problems that their absence generates for the explanation of change.

[21] Graham, 1997, p. 37.

[22] I have presented that view in Nehamas, 1979, 1981, and 1982. My understanding of predication in Parmenides and Plato is closely connected to what Mourelatos, 1970, pp. 56–60, called 'speculative predication.' He is followed by Curd, pp. 39–41.

[23] Another way of expressing that understanding of 'is' is to substitute 'to be *X*,' 'to be *F*' and 'to be *G*' throughout this argument. The conclusion is the same.

[24] This expression, which is vague, is faithful to Parmenides in not distinguishing between subject and predicate. But that is not to say that we are confronted with what Mourelatos once called 'the naive metaphysics of things': if there are things, there are also properties; here we lack both: what we have is something I would call a metaphysics of 'natures' instead; see Mourelatos, 1973, pp. 16–48.

and '*F*' and '*G*' specify the same nature. Call that *H*. It follows that

4 *X* is what it is to be *H*,

which is one thing after all. So *X* is one.

What if *F* and *G* are distinct? In that case, *F* is not *G*, that is,

5 *F* is not what it is to be *G*.

(5) together with (1) yields

6 *X* is not what it is to be *G*.

And (6) together with (2) in turn yields

7 *X* is and is not what it is to be *G*.

Drop the predicate, as Parmenides does, and substitute 'is' for our expansion. It follows that

8 *X* is and is not,

and since, by hypothesis, *X* is, we can rewrite (8) as

9 What is is not.

Yet never shall this be 'mastered,' that what is not is (B 7.1); the decision depends on that: is or is not (B 8.15–16). A real thing cannot be more than one. The proof, like all proofs of the 'signposts' of B 8, depends on showing that assuming its contrary forces us to conclude that Being combines with Not-Being.

Heraclitus' fire, understood as change, satisfies Parmenides' signposts as well as anything does. Even the attribute of immobility, interpreted as 'absence of alteration in the nature of a thing,'[25] as an extension of the notion of 'egress,'[26] is a categorial feature of the being of fire: ἀείζωον captures it in almost explicit terms. Fire is what it is ungenerably and imperishably, wholly, only and indivisibly, unchangingly, perfectly and completely. And so is the common world, which therefore satisfies Parmenides' criteria for being the world of reality.

There is a sense in which Heraclitus is even more Parmenidean than Parmenides himself. For if the world really is fire and nothing else, Heraclitus is, from one point of view, more of a monist than the great monist himself. Parmenides' argument, as I have presented it, is consistent both with numerical and with 'predicational,' both with strict and with 'kind,' monism.[27] His argument shows that everything is one. But that can mean either that there is only one thing that is or that everything that is is one thing; the second alternative is consistent with there being many real things, each of which is itself one. Parmenides' theory was vague: it was not clearly committed to either sort of monism. That, at least, is suggested by the fact that while the later Presocratics who tried to answer Parmenides retained every one of his conditions on Being, none of the pluralists among them felt obliged to support the introduction of several elements in his physics by argument.[28] It is also suggested by the fact that Melissus offered an explicit

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[25] See Curd, p. 85 and Coxon, 1986, pp. 205–6.

[26] See Mourelatos, 1970, pp. 117–19.

[27] The first pair of terms comes from Curd, the second from Nehamas, 1979.

[28] The Atomists, of course, also denied the impossibility of not-being as a substance: the void played

argument in favor of numerical monism (B 8) without any indication that he was repeating a view Parmenides had already expressed.

Heraclitus, then, constructs a monism in regard to the real world: it is all fire, change, an unceasing process, which, subject to the constraints of *logos* and *metra*, appears to us as the relatively stable world of our experience. And though his picture is in a serious sense a mirror-image of Parmenides' vision of an unchanging world which appears to us as a realm of change and transformation, both seem intent on articulating the idea of a world beyond experience and radically distinct from its sensible counterpart. And though they are in total conflict regarding what exactly the unchangeable is, they are in absolute agreement that the real is unchangeable. As Plotinus eventually was to notice, 'Heraclitus, too, knows that the one is eternal and intelligible: for bodies are always coming into being and are flowing away.'[29] In their agreement, Heraclitus and Parmenides declare their common opposition to Milesian physics.

What prompts their opposition? Graham has argued that the most pressing problem for Ionian thought is 'the elevation of one substance of the status of generating substance.' Since any basic substance can change into any other, 'Why … is one of this set prior to the others – ontologically prior?'[30] I believe that exclusive attention to Heraclitus can lead us astray on this issue. Looking at him together with Parmenides reveals that Milesian physics generates another problem, with which both are concerned.

The generation of the differentiated *kosmos* from a single principle raises the question how one thing (one nature) can change into another, how one thing can become many. In Parmenidean terms, air cannot generate water, for example, because what it is to be air (what air is) cannot come to be what it is to be water (what water is). Since what water is is what air is not, the generation of water from air would imply that what air is is what air is not – in general terms, that what-is is not. At best, a new thing emerges that is added to what is already there: but where could that new thing come from (B 8.12–13)? Milesian physics depends essentially on the idea that it is possible for one thing to become (and thus to be) many. Parmenides, who denies that possibility, argues instead that nothing that is ever changes into anything else: one is never many. Change is only apparent.

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that role in their thought. Zeno's paradoxes suggest that Parmenides' claims regarding motion were also vague. At least, they indicate that he had not been taken to exclude (at least successfully) the possibility of locomotion in his argument against *kinesis*.

[29] *Ennead* V.1.9: *καὶ Ἡράκλειτος δὲ τὸ ἓν οἶδεν ἀΐδιον καὶ νοητόν· τὰ γὰρ σώματα γίγνεται ἀεὶ καὶ ῥέοντα*. I am grateful to Steven Strange for pointing out the relevance of this passage to me.

[30] Graham, 1997, p. 26. Graham realizes that Anaximander's *apeiron* is not obviously subject to that problem, since, even though everything returns to it, it is not itself generated by whatever it is that it produces and then reabsorbs. The problems with the *apeiron* are different. It is 'beyond our experience' (p. 28) and it gives rise to the question why, at some particular time, it gave rise to the world as we know it (p. 29). But the first problem is endemic to all cosmological speculation, including the most sophisticated Atomist theorizing, and Heraclitus does not seem to me to address it, especially since he does not appear to have any strong empiricist leanings. One could of course appeal here to B 55, *ὅσων ὄψις ἀκοὴ μάθησις, ταῦτα ἐγὼ προτιμέω*, which is usually translated as 'Whatever comes from sight, hearing, learning from experience: this I prefer' (Kahn, 1979) and thus suggests that Heraclitus gives (at least qualified) preference to sensory information in contrast, say, to philosophical speculation (the qualification comes at B 107; against Snell on the idea of speculation, but with an unacceptable interpretation of his own, see Marcovich, 1967, p. 21). But the passage would be better translated as 'I prefer those things whose learning comes from seeing and hearing,' with *μάθησις* as subject of, and not parallel to *ὄψις* and *ἀκοή*, perhaps connected with Alcman 63, *πεῖρά τοι μαθήσιος ἀρχά*. The contrast involved in that case would be between what one sees and hears for oneself and, probably, what is only hearsay, with no empiricist implications. The second problem, concerning the reason why the *kosmos* began at some particular time, does not, as Graham notes (p. 29 n. 84), seem to have concerned Heraclitus at all: it was first raised by Parmenides.

That is also, I believe, a question Heraclitus faces. But he resolves it by moving in exactly the opposite direction, and into paradox (not, of course, that Parmenides is untouched by paradox himself). He too denies that the real changes, but he builds change into the very nature of what is: what never changes is change itself – an unceasing process, variously named 'fire' (B 30),[31] 'the wise' (B 32, B 41, B 108), 'war' (B 53, B 81), 'god' (B 67, B 102),[32] (reluctantly) 'Zeus' (B 32), and even 'one' (B 50). In this all-encompassing process all the opposites exist in perfect balance (B 51), both synchronically – the god is day night, winter summer, war peace, satiety hunger (B 67) – and diachronically – the fire is kindled in measures and extinguished in measures (B 30). The change is constant, but its product is, so to speak, undifferentiated: the *logos* (which applies to the real, not to its sensible manifestations) is constant. It is, by contrast, the relatively stable world of experience, where opposites are replaced by another, where day follows night, winter displaces summer, where some opposite is always absent, that constitutes, for Heraclitus, the realm of seeming. That is the realm the many believe to be genuine. But their private thoughts (B 2) reveal to them a private world, a personal dream, not a common reality (B 89).

To say that Parmenides and Heraclitus have a common project and structurally similar views is not to say that Heraclitus' position is immune to Eleatic criticisms. A Parmenidean could argue that Heraclitean reality is a mixture of being and not-being. But a Heraclitean might respond that change itself, which is what is, never is not. It is not obvious to me who would win such a debate. The issues are not clear-cut, and Parmenides is not himself immune to criticism. Though his influence is undeniable, his successors obviously rejected a number of his views, as the continuing polemics between his Eleatic followers and their opponents indicate. And his own conditions are so stringent that, as Plato eventually proved, one cannot say even of Being itself that it is (*Soph.* 244b6–245d11, esp. 245c5–6). My point is not that there are no disagreements – deep disagreements – between Parmenides and Heraclitus. It is that they nevertheless agree on the most fundamental point; both believe that it is impossible for one thing really to become another: that would imply that one is many. By means of their radically new distinction between being and seeming, the hidden and the obvious, they argue that the changes the Milesians had addressed and the theories they had offered to explain them did not correspond to the world that really is. To account for the birth of the sun, the earth, and human beings, for the changes of the seasons, for the transformation of things into one another, is to account for appearance. The changes we observe are just that: changes *we observe*, not part of the radically different world of reality. Parmenides' and Heraclitus' views of reality are as shockingly different from the world of common sense as they are

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[31] My suspicion is that 'fire' applies to 'the world that is that same for all' (that is, to reality) only metaphorically, in order to express its status as continual change. It is, as I indicate in the text above, one of many terms Heraclitus uses to refer to the real. If that is so, then we don't need to suppose that fire is in any sense Heraclitus' primary cosmological principle, his candidate for replacing Anaximander's boundless or Anaximenes' air. The fire that changes into sea (B 31a) is on a par with the elements into which and out of which it is transformed, even though its particularly unstable nature makes it suitable for symbolic preeminence among them (cf. B 90, and Graham, 1997, pp. 45–6). In my opinion, Heraclitus' cosmology does not include a primary element: everything is on a par and changes into everything else. But his cosmology, like that of Parmenides (as I will argue below), applies to the sensible world only. The world of reality is totally distinct.

[32] This god, I believe, is to be distinguished from the gods of B 5 who are *created* by war along with mortal beings, and whose immortal status seems almost accidental – no more deserved than the status of those whom that same war makes slaves as opposed to free citizens. That the gods are created may have been a view held already by Anaximenes, if Hippolytus, *Ref.* 1.7 is to be believed. Xenophanes, too, distinguished between his one god (B 23, 24, 25, 26) and the gods of mortals, but he seems to have believed that the latter were simply inventions (B 14, B 15, B 16). In that case, however, who are the gods who have not revealed the full truth to mortals (B 18)?

different from each other.[33] But their basic distinction and its target are part of a single endeavor. They are both committed to the view that reality is unalterable, though that view leads them to the most different pictures of what counts as real.

Heraclitus' comments about the sun (B 3, B 6, B 94), the constellations (B 120) and the transformations of the elements (B 31a–b) seem to be part of a physical theory which lacks the paradoxical air of his metaphysics. But it is not clear how extensive his cosmology was. By contrast, Parmenides composed a detailed account of the sensible world. Plutarch, for one, thought it was unusually complete: 'He left nothing unsaid concerning the most important things, as befits a man who stands at the origins of natural philosophy (*ἀνὴρ ἀρχαῖος ἐν φυσιολογία*) and who composed his own work, not the corruption (or travesty: *διαφθορά*) of another' (*Adv. Col.* 1114b).[34]

Parmenides' cosmology is in the second part of his poem, the *Doxa*. But he himself tells us the *Doxa* is deceptive, and in doing so he has confused his readers at least since the time of Aristotle.[35] The poem's first part, the *Aletheia*, argues that Being is one and unchanging, that neither generation nor destruction exists: the *Doxa*, which follows it, seems to disregard it completely. But why should Parmenides engage in what he seems to have proved is an impossible enterprise, all the while telling us not to believe what he says?

The question of the status of the *Doxa* is crucial to our understanding of the relationship between Parmenides and Heraclitus. If the *Doxa* contains a cosmology Parmenides rejects – if its purpose is to describe a wrong theory others believe but which he himself denounces – then the *Doxa* may include the views of Heraclitus. And if Parmenides does in fact attack Heraclitus in the *Doxa*, then he cannot himself endorse it. But if the *Doxa* contains Parmenides' own cosmology, then it cannot contain a criticism of Heraclitus. How are we to decide that case?

Both Graham[36] and Curd[37] believe that Heraclitus is one of those whom Parmenides attacks in his poem. Graham's view depends partly on his belief that Parmenides describes three 'ways of inquiry': the way of being and the way of not-being in B 2, and a mixture of these in B 6. Since he believes that 'no early philosopher seems to hold that cosmology, or philosophical discourse, is about not-being,' Graham concludes that no one needs to be refuted for following the way of not-being (p. 39). Parmenides must therefore be criticizing his opponents for following another road; and that must be the way that mixes being and not-being mentioned in B 6. Graham's premise is correct, but his conclusion is not. To follow the way of not-being is not to make not-being the explicit object of your discourse: the way of not-being represents Parmenides' diagnosis of an error, not the words in which that error is expressed. Some years ago, I argued that Parmenides' text is best read on the assumption that there are only two ways of inquiry, the correct way of being, and the wrong way variously referred to as the way of not-being, of both being and not-being and the way of mortals.[38] I see no reason to abandon that position.[39] In B 6, the goddess does not tell the young man that any way of inquiry is forbidden.

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[33] In addition, neither explained precisely how appearance and reality are related, how the many, obvious things we observe reflect (if they reflect at all) the one hidden harmony.

[34] Stephen Menn has suggested to me that *διαφθορά* here may have the sense of 'refutation' rather than 'corruption.' I believe such a reading is plausible, but neither it nor the exact nature of this part of the text, which is not quite obvious, affects the point that Parmenides devoted a large part of his work to the cosmological project he seems to be denouncing.

[35] For discussion of Aristotle's attitude toward the *Doxa*, see Curd, p. 99 n. 2 and Nehamas, 1981, p. 134.

[36] That is the central thesis of 'Heraclitus and Parmenides' (this volume, pp. 27–44).

[37] Curd, pp. 16–17, 52 n. 77, and pp. 116–26, esp. 121–2.

[38] That is the central thesis of Nehamas, 1981. The same conclusion was reached independently by Cordero, 1984; see also Curd, pp. 53–60, who accepts this reading and offers further support for it.

[39] I now find an additional consideration in favor of the view that the correct version of B 6.2, *πρώτης γὰρ σ' ἀφ' ὁδοῦ ταύτης διζήσιος …*, ends with *ἄρξω* (or *ἄρχω*), and not with Diels' *εἴργω*. That is, the line

On the contrary, she says that she will *show* him both in the course of the poem: the way of truth in its first part, and the way of opinion in its second. And that is exactly what she does: B 6 is a summary of what is to follow.

Whether they believe there are two or three ways of inquiry altogether, most scholars still find a criticism of Heraclitus in B 6.9–10. We need to discuss that passage briefly before returning to the *Doxa*:

> οἷς τὸ πέλειν τε καὶ οὐκ εἶναι ταὐτὸν νενόμισται
> κοὐ ταυτόν, πάντων δὲ παλίντροπος ἐστι κέλευθος
>
> [mortals,] who think that being and not-being are the same
> and not the same, and [that] the way of everything is backward-turning.[40]

I am not convinced that Heraclitus is Parmenides' target here, for three reasons.[41] First, we cannot have it both ways: if B 6 is a criticism of Heraclitus, then, given the stark difference between the wording of this passage and B 8.56–9, the *Doxa* is not. In B 8.56–9, the principles of the *Doxa*, Light and Night, are said to be separate from each other, each completely the same as itself and different from its opposite: χωρὶς ἀπ' ἀλλήλων … ἑωυτῷ πάντοσε τωὐτόν,/ τῷ δ' ἑτέρῳ μὴ τωὐτόν.[42] They do not mix in any way with one another. The principles of the *Doxa* may create a slew of problems of their own; but their radical separation from one another is linguistically and philosophically contrary to the pervasive confusion of being and not-being in B 6.[43]

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should not say that the goddess is turning the youth *away* from some way of inquiry, which implies that she then also turns him away from another one in B 6.3, αὐτὰρ ἔπειτ' ἀπὸ τῆς … ('and then again from that one …'), and thus results in there being three ways of inquiry altogether: one that is correct and two that are wrong. The new element in my argument is the following. In Nehamas, 1981, I argued that 'σ' ' in B 6.2 need not be an accusative and took it, as it is possible to do, as an elided dative instead; the goddess thus tells the youth, 'For, first, I will begin for you from this way of inquiry,/and then again from that …'. The idea that the goddess makes two beginnings, however, is not natural, despite the fact that it calls to mind what she says in B 5, ξυνὸν δέ μοί ἐστιν, / ὁππόθεν ἄρξωμαι· τόθι γὰρ πάλιν ἵξομαι αὖθις, 'It is the same thing to me where I begin, since I will come back to the same place again.' Now, however, I believe that 'σ' ' can be an elided accusative after all; ἄρχειν has the sense 'to lead': the goddess is saying to the youth, 'For, first, I shall *lead* you through this way of inquiry,/and then again from that …'. My reason for thinking so is that the most plausible emendation of B 12 involves the use of ἄρχειν in exactly that sense, construed with an object in the accusative. 'The goddess [not the narrator of the poem] who governs everything,' Parmenides writes, 'leads all things through painful birth and union': πάντα γὰρ ‹ἦ› στυγεροῖο τόκου καὶ μίξιος ἄρχει. If that is the correct reading, as I believe it is (contrast Coxon, 1986, p. 87), then nothing prevents the much more natural rendering of B 6 given here, and the case for the existence of two and only two ways of inquiry in Parmenides is made even stronger.

[40] πάντων may refer either to the mortals themselves, whose own 'road' is backward-turning or to the content of their beliefs (Kirk, Raven and Schofield, 1983, p. 247 and Coxon, 1986, p. 54, for example, prefer the former). In that case, the putative reference to Heraclitus is even weaker. I believe, however, with Curd, 1998, p. 60 n. 102, that it probably refers to the mortals' beliefs as well: both can be reasonably considered 'backward-turning.'

[41] Kirk, 1970, pp. 2, 373, has also argued against that claim, but the particular reasons he offers have been refuted by Vlastos, 1995, pp. 130–1.

[42] The point about identity and difference is made explicitly about Light only, but it clearly applies to Night as well.

[43] Curd's view of Light and Night as 'enantiomorphic' opposites (pp. 107–10) may appear to remove the inconsistency. Enantiomorphic opposites are defined in relation to one another: what one is the other is not. So even if Light and Night are thought to be absolutely separate, their conceptual connection makes them deeply dependent on, and thus confused with, one another. But Curd's view, as she is herself aware, implies that every cosmology that relies on opposites results in the radical confusion of being and not-being of B 6 (pp. 116–23). That in turn implies that B 6.9–10 cannot contain a specific allusion to Heraclitus.

Second, B 6 denounces 'mortals' in general. It could be, of course, that Parmenides takes Heraclitus to be 'emblematic of the whole benighted tribe' (cf. Graham, this volume, p. 42). But if the mortals go wrong (as I shall argue below) in confusing appearance and reality, Heraclitus (as I have read him so far) is not a good representative of that error. The mistake of believing that being and not-being are both the same (as each other) and not the same (as themselves) is best understood as a general claim against the idea that one thing can really be generated out of another. Consider the transformation, say, of air into fire. Since, as B 8.20 says, what something becomes is not what it is, then either the air that is transformed into fire was not air in the first place (for then it could not cease to be air) or the fire into which it comes to be transformed is not after all fire (for then it could not have come to be fire). In either case, once we remove the predicates, we are left with what Parmenides considers impossible, namely,

9 What is is not.

And that is to say that being and not-being are the same as each other. Interestingly, it is the very same argument that shows that being and not-being are not the same as themselves. In fact, no additional considerations are required: the two are aspects of a single idea. For to say that fire is not fire and thus that what is is not is just to say that being is other than itself. Similarly, it is to say that what is not is and therefore that not-being is also other than itself.

The mixture of being and not-being B 6 denounces is therefore produced by nothing more than the very idea that change is real. Parmenides' formula, which refers not to anyone's words (and therefore not to Heraclitus' B 49a) but to the implications of believing that reality changes, applies to Milesian cosmogony but not to Heraclitus himself. For, as I have argued, Heraclitus rejects Milesian cosmology, distinguishes appearance from reality, and denies that reality is subject to change. Reality is change. But, perhaps paradoxically, that is not to say that it changes![44]

Third, the occurrence of παλίντροπος in B 6 is not a philosophical echo of Heraclitus. Parmenides uses the word to refer to the sequential changes of real things into each other which are involved in Milesian cosmology. But in Heraclitus' famous passage the word applies to a stable, stationary balance – the harmony produced by the tension of a bow or a lyre, where all forces are in perfect equipoise (B 51). If παλίντροπος is an allusion to Heraclitus, it seems to lack a point. And an allusion without a point is not an allusion at all.[45]

We can now return to the *Doxa*, which, modern scholars generally agree, presents a cosmology Parmenides does not himself endorse. This cosmology, it is generally said, is a reconstruction of the views of his opponents, perhaps in some ways better than any other, but still fundamentally

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[44] That the paradox is only apparent is shown, I believe, by Plato's final views on the issue of 'self-predication.' There is, Plato concludes in the *Sophist*, nothing absurd in a statement like 'Motion moves,' which seems to attribute change to a Form, since it can be interpreted only as saying that Motion, however understood, is what it is to move; and that does not imply that it is a thing that moves. Similarly, there is no paradox in saying that Motion rests, since all Forms, being real things, are not subject to change. Plato shows that, in general, self-predication, which applies to all the Forms, in no way implies that each Form is characterized by the property which it constitutes (and which is all the self-predication asserts). Some Forms, of course, do: Being is being, the One is one; but that these Forms *participate* in themselves is a completely independent fact. It is very ironic, I think, that Plato's 'parricide' of Parmenides, his demonstration that what is is not, can also be seen as a partial vindication of a Heraclitean idea! I have discussed Plato's considered approach to self-predication in Nehamas, 1982.

[45] I think we should agree with Graham, 1997, that Heraclitus believed that any material substance can change into any other (p. 35) and that therefore the term παλίντροπος κέλευθος describes a view he actually held (though not the view he expressed in B 51). But the fact remains that Heraclitus also held the view that such change does not correspond to the nature of things, but constitutes the private world of the many.

flawed. Parmenides looks at physics from the outside. The *Doxa* is philosophical analysis, not substantive physics.[46]

If the *Doxa* criticizes the views it contains, we need to determine whose views those are.

Since Parmenides' cosmology does not in fact correspond to any other existing cosmology in early Greek thought, those who deny that it is Parmenides' own have generally thought of it as a kind of negative ideal model. Though it is the best cosmology possible, it still shows that cosmology is fatally flawed, since it requires 'at least two irreducibly different things in a constant process of interaction; and both the plurality and the process have now, on Parmenides' view, been proved absurd.'[47] Parmenides, as Graham writes, does not attack an existing cosmology: he constructs 'a cosmology of his own – a new and improved model – to show it off while at the same time undercutting it – deconstructing it in the modern jargon'. Curd, who takes a more nuanced approach to the *Doxa*, in the end, agrees with the general idea. She does not believe that Parmenides rejects cosmology out of hand: 'Parmenides supposes a trustworthy cosmology may be possible and … discloses what such a theory might be like and how it could be tested' (p. 100). Still, he does reject the particular cosmology he offers in the *Doxa* because Light and Night are unacceptable cosmological principles. Parmenides, Curd argues, would accept a cosmology that appealed to truly separate, non-oppositional entities that could be defined independently of each other. But Light and Night, which represent the best Parmenides can do, are 'enantiomorphic' opposites and therefore inadequate. Though the *Doxa* contains hints that 'help in determining what the correct account should be' (p. 103), it is wrong as it stands. Parmenides does not reject cosmology in general, but only the cosmology of the *Doxa*.

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46 Owen, 1986, p. 54 (the pagination refers to the version of Owen's paper as it appeared, slightly revised from its original form, in Furley and Allen, 1975, pp. 48–81). Owen continues: 'Parmenides set himself to give the correct or the most plausible analysis of those presuppositions on which ordinary men, and not just theorists, seem to build their picture of the physical world … Whittled down to their simplest and most economical they can be seen still to require the existence of at least two irreducibly different things in a constant process of interaction; and both the plurality and the process have now, on Parmenides' view, been proved absurd' (pp. 54–5). Some variant of Owen's view has been accepted by many recent scholars. Stokes, 1971, pp. 147–8, for example, writes that Parmenides' account is wrong but 'presents fewer violations of the laws of Truth' than any other. Barnes, 1979, who believes that Parmenides is committed to the utter falsehood of the *Doxa*, claims that he includes it in his poem because it is not 'unusual for a philosopher to describe, at length, views with which he vehemently disagrees' (p. 156). But to say that Parmenides devotes by far the longest part of his work to a description of the views of others in order to resist their 'meretricious temptations' (p. 157) seems to me a psychologically poor explanation. In any case, the *Doxa*, as far as we can tell, is not a catalogue of sins, but a straightforward, even appealing, account of natural phenomena. Would it make any sense for a contemporary philosopher to attack, say, realism in a long book which, sandwiched between warnings against it, consisted mainly of realist solutions to all central philosophical problems? The hypothesis that Parmenides simply rejects the views of the *Doxa* is, equally simply, not believable. Guthrie, 1969, following Owen, takes a more positive view of the *Doxa*: Parmenides' 'account of appearances,' he writes, 'will excel all others'; but, he continues, '[to] ask "But if it is unreal, what is the point of trying to give an account of it at all?" is to put a question that is not likely to have occurred to him' (p. 52). The world of seeming, Guthrie concludes in what seems to me like a gesture of despair, is like a hallucination or dream (p. 75). Coxon, 1986, appears to go against the scholarly consensus: 'In … describing as deceptive his report of human beliefs, P. neither alludes to commonly held beliefs about the history and nature of the physical world nor implies that those which he reports are not accepted by himself' (p. 218). But I find it difficult to see how he can then go on to claim that 'though P. regards his account of the physical world as the best possible (1.61), it is still "fallacious", since it is obliged to treat unreal things as real (cf. *ὄν*, [B8]57, *ἔασι*, fr. 20.1).' A general discussion of the very complex issue of the status of the *Doxa* can be found in Clark, 1969; Curd, pp. 98–104 with notes, is well worth consulting for further references.

47 Owen, 1986, pp. 54–5.

Is that in fact true? If Parmenides rejects the *Doxa*, why does he devote so much effort to composing it? If he does not, why does he warn us against it throughout his poem? To answer these old questions, we must ask a new one: What exactly does Parmenides warn us against? What precisely is the error which we must try at all costs to avoid?

Parmenides issues his first warning against 'mortal opinions' as soon as he first mentions them (B 1.30–2). I think Owen is right to claim that there is 'no saving clause' in these lines: Parmenides does not say that mortal opinions are partially or approximately true. But I think Owen is wrong to infer from that Parmenides therefore cannot accept the cosmology of the *Doxa*, the purpose of which, far from making 'a contribution to early science,' is 'purely dialectical.'[48] Parmenides, I want to argue, believes both that mortal opinions are deceptive and that his cosmology is correct. How is that possible?

Parmenides introduces mortal opinions with the warning that there is no 'true trust' (*πίστις ἀληθής*) in them. Why not? All he says at this point of the argument – which is also all we know about the content of those opinions so far – comes at B 1.31–2: *ὡς τὰ δοκοῦντα/ χρῆν δοκίμως εἶναι διὰ παντὸς πάντα περ ὄντα* ('how it was right that the things that seem to be reliably, being indeed the whole of things').[49] What lacks trust is the view that things that seem (*τὰ δοκοῦντα* – a category first introduced, as I have argued, by Parmenides and Heraclitus) really are (*δοκίμως εἶναι*), since they are all there is. Since mortals are unaware of Being (as Heraclitus' many are unaware of the common world or the *logos*), they attribute being to seeming. Their error is their confusion of these two distinct realms. Whether cosmology necessarily entails that confusion remains an open question.

The second warning is issued in B 7:

ἀλλὰ σὺ τῆσδ' ἀφ' ὁδοῦ διζήσιος εἶργε νόημα
μηδὲ σ' ἔθος πολύπειρον ὁδὸν κατὰ τήνδε βιάσθω,
νωμᾶν ἄσκοπον ὄμμα καὶ ἠχήεσσαν ἀκουήν

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[48] Owen, 1986, p. 54.

[49] Translation from Curd, p. 21. Text following Owen, 1986, pp. 43–54, though, as he says, no major point of interpretation depends on our choice. A large literature exists around the question whether the imperfect *χρῆν* in B 1.32 is counterfactual or not. If it is, some have argued (notably Mourelatos, 1970, pp. 204–19), Parmenides cannot believe that any truth of any kind accrues to the *Doxa*. Mourelatos' main target was the view of Reinhardt, 1916, p. 7, that *χρῆν* is not counterfactual but instead has the sense of 'past obligation.' In that way, Reinhardt hoped to show that there is a sense in which Parmenides offers a qualified endorsement of the contents of the *Doxa* (p. 70). Owen, 1986, trying to show that Parmenides does not in any way endorse the *Doxa*, countered that the phrase *ὡς … περ ὄντα* is not spoken by the goddess in her own person, but represents the views of mortals as they themselves see them. Mourelatos, (1970, p. 209 n. 46) has countered that this involves an unnatural construction, and the debate is still unresolved. My own view is that the issue has assumed too much prominence, and has become too complicated, because of the assumption that if Parmenides, through the goddess, expresses any qualification regarding the falsehood of the *Doxa*, then he must contradict the strictures of the *Aletheia*. I believe that assumption is wrong. My view, which I present in what follows, is that Parmenides believes that the *Aletheia* is absolutely correct (nothing real is subject to change) and that the *Doxa* is deceptive not because its cosmology is wrong, not because it misdescribes its object, but because it is a (correct) description of the wrong thing – appearance – which 'mortals' mistake for reality. That is, the deceptiveness of the *Doxa* does not consist in its presenting a cosmology, but in the temptation to take cosmology to describe the nature of reality. If we accept this view, then the translation of *χρῆν* becomes much less significant than before. B 1.31–2 describes the error of mortals, namely, their view that appearance is reality. If the goddess is speaking for herself, a counterfactual construal is appropriate, since she does not make that misidentification herself. If she is speaking from the point of view of mortals, the sense of 'past obligation' is appropriate, since they do in fact believe that what seems is what is. In neither case is cosmology itself the error the mortals make: that error is allowing the seductive charms of appearance to lead them into thinking that it is all there is to the world – something reasoning proves to be false.

καὶ γλῶσσαν, κρῖναι δὲ λόγῳ πολύδηριν ἔλεγχον
ἐξ ἐμέθεν ῥηθέντα.

But hold your thought back from this way of inquiry
and don't let habit force you to cast aimless eye,
reverberating ear and tongue along this way
where many things are experienced, but judge
through reason the much-contesting argument
spoken by me.[50]

The young man will travel this road in the second part of the poem. Traveling is a metaphor for learning, as we have already been told in B 1.31 ('you will learn these things, too'). What, then, does the advice, 'hold your thought back from this way of inquiry,' mean? It cannot mean not to listen to what the goddess will say. It does mean that he must not believe it. But what is it not to believe what he hears as he goes through that road? Is it to think that the cosmology he will hear is inaccurate? That seems wildly implausible. What is much more plausible is to suppose that 'to hold one's thought back' is not to be carried away by what one finds there. And to be carried away, in this context, is not simply to believe that the cosmology of the *Doxa* is a correct cosmology. It is, more strongly, to trust the unreliable evidence of the senses.

Why are the senses unreliable? Not just because they indicate that the world around us changes, but because they tell us that the world around us, the changing world we perceive, is all there is. That trees grow is incontestable; what can be contested is that trees are real: that is exactly what the goddess's argument in B 8 contests. The error she warns against is the same as the error of B 1: thinking that what you see along this way of inquiry is all there is, that what merely seems really is, that what you hear – and learn – describes reality itself and not mere appearance. When he sets out on the way of the *Doxa*, the young man must keep in mind the goddess's argument: Being never changes at all, and therefore the changing things of the *Doxa* are other than Being – δοκοῦντα. But τὰ δοκοῦντα are not. To think that they are is really to think that what is not is, something that 'will never be mastered' (B 7.1).[51] The *Doxa* is deceptive not because of its specific contents but because of the way its contents have been (and are likely to be) interpreted. Changing things exist. They appear to be as real as anything can be. But that – however temptingly our senses dispose us to think otherwise – is merely appearance, and nothing else.[52]

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[50] A few comments on the translation are in order. I prefer to take πολύπειρον as modifying ὁδόν rather than ἔθος, though both of course are possible, and possibly both are intended (see also Coxon, 1986, p. 191; Alex Mourelatos has pointed out to me that in B 1.2 we hear of the πολύφημος ὁδός of the goddess). The contrast is then between a way where only one thing, Being, is encountered and another, where many things appear. It is also a contrast that anticipates Plato's distinction between the sight-lovers, who always think that the one Form is many, and the philosophers, who understand the difference, in *Rep.* V. 'Much-experienced' is in any case a bad translation of πολύπειρος: Parmenides is here using the term in a negative sense, while the English term has positive connotations (like the parallels cited in LSJ, s. v.). I also prefer the active 'much-contesting' as opposed to the passive 'much-contested' as a translation of πολύδηρις. It is the goddess's argument that disputes many things, commonly taken to be in ways opposed to the truth, not others who dispute that argument, which has not even yet been made when the goddess utters these words.

[51] The goddess has not yet made this argument, which will come in B 8. But the argument will have been made (ῥηθέντα) by the time the young man confronts the seductive teachings of the *Doxa* (B 8.50).

[52] This, I believe, disposes of Curd's point that Parmenides' instructing us 'to assess critically the claims of *Aletheia* while at the same time allowing us to accept passively a false account and a "deceptive ordering" in the *Doxa*' creates a further difficulty for the latter (1998, p. 101). Guarding against the tempting but deceptive evidence of the senses at the same time that we learn the structure of appearance is precisely to engage in the 'critical assessment' of the claims of the *Doxa*.

What, then, does the goddess mean by her third warning, which she issues when, leaving the *Aletheia* behind, she introduces the *Doxa* as 'the deceptive *kosmos* of my words' (*κόσμον ἐμῶν ἐπέων ἀπατηλὸν ἀκούων*, B 8.52)? *Kosmos* is usually taken to be a linguistic entity, the 'arrangement' (Coxon) or 'order' (Curd) of the goddess's words. If the goddess's words are themselves deceptive, it is tempting to infer that the very contents of the *Doxa* are incorrect, an incoherent or inaccurate description. But *kosmos* might also be the world of which the goddess is speaking: 'From this point on, learn mortal opinions, coming to know (through listening) the deceptive world my words concern.' If it is the *world* itself the goddess describes that is deceptive, then her description of it need not be itself incorrect. The statements of which the *Doxa* consists, the theory it contains, need not be wrong. It is the world they depict – however accurately – that is misleading, masquerading as real when it is only apparent, especially to the extent that we trust our senses, which are incapable of disclosing to us the world of reality.

Even if, however, *kosmos* refers to the goddess's words, the temptation to infer that the cosmology of the *Doxa* must be wrong, to which I referred in the previous paragraph, can and must be resisted. Are these words inherently deceptive, embodying an error no one can avoid? That seems unlikely, since B 7 suggests that, armed with reasoning, the young man need not be seduced by the way of mortals even as he is traveling on it. That in turn suggests that the *Doxa* does not provide a wrong description of its object. If it did, it would consist of false statements: for example, it would be false that the moon is 'an alien light wandering in the dark bright around the earth.'[53] In that case, to avoid being deceived by the *Doxa* would be to believe none of its assertions; for example, we should not believe that the moon revolves around the earth. But is that plausible? Could *that* be what Parmenides wants us to do? The idea that we should learn his complex cosmology and not believe it is bizarre, if not outright incoherent. Parmenides expects us to learn, in the most straightforward sense, a large number of truths in the *Doxa*: *εἴσῃ δ' αἰθερίαν τε φύσιν τὰ τ' ἐν αἰθέρι πάντα/σήματα* … (B 10.1–2: 'You will come to know the origin of the aither and all the heavenly bodies in it …). The *Doxa* errs because it gives the wrong, though plausible, impression that it describes reality. That is how we can explain both why it is imperative to go through it in detail and how we can protect ourselves against it.

This last warning continues (B 8.53–54):

> *μορφὰς γὰρ κατέθεντο δύο γνώμαις ὀνομάζειν*
> *τῶν μίαν οὐ χρεών ἐστιν – ἐν ᾧ πεπλανημένοι εἰσίν.*[54]

In order to account for change, cosmology postulates two elements whose combinations account for alteration and variety. That is somehow wrong. But is it wrong because one of those two elements is illegitimate or is the postulation of both a mistake? Curd offers a new interpretation that accounts for both alternatives.[55] According to her view, Parmenides claims that the fundamental error of mortals is not pluralism, but the fact that their pluralism is of the wrong kind. It is necessary for cosmology to appeal to a plurality of entities, but each one of these must be truly independent, possessing its own distinct nature. Yet every cosmology produced so far, including the *Doxa* itself, appeals to the opposites. Opposites are not independent of one another. Parmenides' own elements, Light and Night, are in fact 'enantiomorphic' opposites: each is 'defined in terms of what the other is not' (p. 107).[56] Light is aetherial, mild, and

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[53] B 14. See Coxon, 1986, pp. 245–6, who proposes to understand *νυκτιφαές* as 'darkly bright' – an oxymoron I find difficult to accept.

[54] See below, p. 62, for the translation of these lines.

[55] Curd, pp. 104–10. And see the next note.

[56] Curd's interpretation allows her to show that both traditional accounts of B 8.54 contain some truth. It is partly true that only one of the two forms should be named, since the other, which is simply its opposite, 'is not a legitimate form at all.' But since if one of the two (it doesn't matter which) is named,

weightless; Night – dark, dense, and heavy – is everything Light is not. They are therefore 'an illegitimate mix of what-is and what-is-not'; Parmenides therefore argues 'that they are pseudo-entities and cannot be pointed at' (pp. 108–9). Parmenides constructs this illegitimate cosmology because of 'the near universality of opposites in early Presocratic theories,' especially in Heraclitus (p. 122). The *Doxa* is an emblem of where cosmology has gone wrong:

> The account of the natures of the opposite forms Parmenides gives in lines B 8.55–59 shows that, despite the appearance of two separate entities, each of which has its own positive and complete nature, a system of enantiomorphic opposites actually imports what-is-not into the very heart of a cosmological system. Despite thinking that they are on the positive route of inquiry, all theorists who depend on opposites and who insist that coming-to-be and passing-away are real (and this includes most of Parmenides' predecessors) are actually on the negative route. (p. 123)

Parmenides does not therefore accept the *Doxa*. Nevertheless, he is in principle willing to endorse cosmology, provided that it is based on truly independent entities. Not the pluralism of the *Doxa*, but its reliance on opposites is at fault: 'One or more metaphysically basic entities that meet the requirements of the *Aletheia* might well function as the foundations of a cosmology' (p. 123). The *Doxa* is not a rejection of cosmology itself, but only of the cosmologies constructed by early Greek philosophy; not a paradoxical rejection of the endeavor to explain the sensible world, but an honest challenge to its proper completion.

This is a very attractive reading. But it faces two difficulties. The first is, so to speak, psychological. If, on the one hand, Parmenides is aware of the problem of opposites and has the right sort of entities up his sleeve, why does he not produce the right cosmology after all? If, on the other, he believes he has produced the best account there is and has not yet conceived of Curd's alternative, what has given him the idea that cosmology can even in principle appeal to such independent entities in the first place?

The second, and more serious, difficulty is that Parmenides must consider any two distinct entities, not just the traditional opposites, as enantiomorphs in Curd's sense. Strong predication implies that what is *F* is not *G* and conversely, even if '*F* ' and '*G* ' do not denote opposites. 'What is *F* ' is, on this understanding of predication, equivalent to 'what *F* is.' But if anything that *F* is is also something that *G* is, then *F* and *G* will turn out to be the same: that is just what is meant by saying that what *F* is is what *G* is.[57] What fire is, for example, is what earth is not; what earth is is what fire is not. That is not a problem specific to the particular objects – Light and Night – to which the *Doxa* appeals. And, in my view, it is not a problem at all. Any account of what something is, provided there is another thing as well, 'will include irreducible references to what the other is not.'[58] Interestingly enough, nowhere in the extant parts of the *Doxa* does Parmenides say anything even remotely reminiscent of the claim that Light and Night are 'an illegitimate mixture of what-is and what-is-not.'

The reason is that he does not believe that Light and Night are such an illegitimate mixture. Parmenides' objection to Ionian cosmology is that it tries to account for the many changing

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the other, being its opposite and defined in its terms, necessarily enters the picture as well, 'neither of the two, described as they are, should be named at all' (p. 109). I provide my own interpretation of this passage, which parallels Coxon's, below.

[57] Such a conclusion could be avoided only by distinguishing between substances, essences and accidents – precisely the distinction Parmenides' argument provokes later Greek philosophy into devising in order to answer his radical separation between appearance and reality and his denial that any real thing is subject to change. I give part of this account in Nehamas, 1979 and Nehamas, 1982. That account is still incomplete, and should be extended to Aristotle's theory of matter and form, as well as to his view of actuality and potentiality: both are partly motivated by Parmenidean puzzles regarding change.

[58] Curd, p. 107. The 'predicational' monism Curd attributes to Parmenides is, in my opinion, committed to the view that everything that is is precisely what everything else is not.

objects of the world by appealing to the transformations of a single basic principle. But the *Aletheia* shows that a real thing, a nature, cannot become another: that is for one to be many, and that in turn is for what is to be what is not.[59] The illegitimate mixture occurs not when two things exist side by side, but when one becomes another, when something that is not (say, Light) comes to be something that is (say, Night). Parmenides' two principles mix in different proportions and thus account for the multiplicity and change of the sensible world, but neither one is transformed into the other.

That is just what B 8.53–4, as Coxon saw, says:

> For they have resolved to name two Forms
> (of which it is wrong to name only one, wherein men have gone astray).

Parmenides, Coxon writes, 'means here that not one but two Forms must be named. The phrase is a direct and general criticism of the Milesian philosophers who had derived the universe from a single "Form".'[60] The mortals' error in naming, therefore, refers to the Ionians' effort to produce a cosmology according to which a single principle undergoes various transformations. It is another version of the mortal thought that expressions like 'becoming and perishing, being and not-being, changing place and exchanging bright color' are true (*πεποιθότες εἶναι ἀληθῆ*), that they are names of Being, and that Being therefore changes (B 8.38–41). Naming the two forms, introducing two elements, by contrast, is *right*: without them, cosmology is impossible. The *Doxa* is Parmenides' glory. Its dualism – the very first effort to go beyond Milesian monism – is not its shortcoming, but its own radical innovation, its great accomplishment. It is a major contribution to early science and to the development of Greek physics.[61]

I have said that the monism of the *Aletheia* is vague: Parmenides' argument is compatible with there being more than one real thing. If that is so, the mere existence of Light and Night is not a problem. The problem is the status of the products of their mixture, the many changing objects that confront us in the world. For if those are real and (in the strict sense of the *Aletheia*) are something, what they will have to be, since Light and Night are everywhere (B 9.2; cp. B 8.24), is both Light and Night. Each would therefore have to be two things, and it would violate the principle that nothing can be more than one. Accordingly, every observable thing (even light and night as we encounter them, insofar as they are never in absolutely pure

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[59] If what *F* is gives rise to what *G* is, and *F* and *G* are distinct, then either what *F* is was already what *G* is and (since what *G* is is what *F* is not) what *F* is not is what *F* is and what is not is; or what *F* is ceases to be that and becomes something else, in which case what *G* is comes to be from what *G* is not, which, B 8.7–9 argues, is impossible for the same reason: to come to be from what is not is to be what is not.

[60] Coxon, 1986, p. 220. Though I don't agree with Coxon that Heraclitus is among Parmenides' Ionian predecessors, I find his remarks on this passage extremely insightful. Particularly useful is his observation that the perfect tense of *πεπλανημένοι* 'distinguishes the historical allusion to Ionian thinkers from the analysis of the status of the two Forms expressed by the aorist *κατέθεντο*.' On the general issue of the status of the *Doxa*, Coxon's position is equivocal. Though he thinks that B 8.50–2 implies that Parmenides 'neither alludes to commonly held beliefs … nor implies that those which he reports are not accepted by himself' (p. 218), he also seems to think that Parmenides ultimately rejects the *Doxa*, since he interprets the phrase *διάκοσμον ἐοικότα* in B 8.60 as 'unknowable in principle, but as like the one reality as is possible for a dualist order' (p. 225).

[61] This view goes directly against Graham's former claim that the dualism of Parmenides' cosmology 'seems to parody a feature actually found in Ionian systems, and it is one that Parmenides evidently wants to criticize'. It also answers his question, 'But why dualism rather than pluralism?' (*ibid.*): Because it is Parmenides' own theory, and he had no reason to introduce more than two entities unless that created problems of its own; but since the theory is being proposed here for the first time, such problems could only be raised after Parmenides wrote. What those problems were is another issue, which I would like to examine on a separate occasion.

form) must be unreal, seeming, apparent. Cosmological monism is internally inconsistent. Dualism is not. But it is inconsistent to think that the things cosmology concerns, things that seem, are real. Everything in this world is many, part of the πολύπειρος ὁδός which leads away from the one. Parmenides therefore accepts the *Doxa* as an *accurate* description of appearance. But, though accurate, it is a description of appearance and thus a description of a *false* world, and that's why he warns us against it. The world it describes is completely distinct from the world that satisfies the conditions of the *Aletheia*, even though our senses alone tell us it is the only world that is and commit us to thinking that what merely seems really is. Only reason can help us escape that seductively misleading impression.

Parmenides does not explain the relationship between these two worlds. He probably saw it as an unbridgeable gap. That was for him the problem with the world of seeming. For many of his successors, it was the problem with his theory. Much of later Presocratic philosophy, including Plato's middle theory of Forms, is an effort to show how Seeming emerges from and is connected to Being. But the distinction between Being and Seeming allows Parmenides to think that the *Doxa* is both correct and deceitful. Simplicius saw that, and he was right: δοξαστὸν οὖν καὶ ἀπατηλὸν τοῦτον καλεῖ τὸν λόγον οὐχ ὡς ψευδῆ ἁπλῶς ἀλλ' ὡς ἀπὸ τῆς νοητῆς ἀληθείας εἰς τὸ φαινόμενον καὶ δοκοῦν, ἐκπεπτωκότα ('He calls this account seeming and deceitful not because it is false without qualification but because it has fallen from intelligible truth to the apparent and the seeming,' *In Phys*. 39.10–12).

And, like Parmenides' goddess, we now return where we began. The *Doxa* does not contain a criticism of Heraclitus, since its cosmology is Parmenides' own. Its target is Milesian monism and the confusion between appearance and reality, which are the very objects of Heraclitus' own criticism of his tradition. No single, stable principle is gradually transformed into the many changing objects of experience. The seeming world of mortals, like the private world of the many, is distinct from the real world which both Heraclitus and Parmenides connect with *logos*. Cosmology discloses neither the Being that is the same in every direction nor the God who is both day and night, neither what is unchangingly the same nor what is everlastingly different. More changeable than unalterable Being, more stable than the ever-living Fire, the world of cosmology is for both Heraclitus and Parmenides a world in which distinct objects, which change into one another, appear to confront us. And that is all they do: *appear* to confront us. Reason says that the real does not change. That single intuition unites Parmenides and Heraclitus at the most basic level of their thought. It leads them to positions that appear to contradict one another. And that is all they do: *appear* to contradict one another. For they are really – that is, structurally – the same. The distinction between reality and appearance is the great common legacy of Heraclitus and Parmenides. Even at the moment it first emerged, it manifested itself in the most disparate ways. It keeps reappearing in different guises. But what matters, Heraclitus' and Parmenides' distinction implies, is not how things appear but what they are. What matters is the distinction itself, not the form in which it emerges in each particular case. And so what matters about Parmenides and Heraclitus themselves is not where they are different but where they are the same, not what is private to each but what is common to both, not where they seem to be many but where they are in fact one. We must use their distinction in order to understand them. And since it is a distinction that truly appears to steer all things through all, that really seems to be everywhere anything is, it may prove necessary to rely on even when we try, as we should, to leave it behind. How could we escape that which never sets? Heraclitus and Parmenides will perhaps be always with us.[62]

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[62] I am grateful to the original audience of this paper, delivered at a conference in honor of Alex Mourelatos for their generous reaction to it. I am particularly indebted to Sarah Broadie, Stephen Menn and Stephen White for their comments on an earlier version: I wish I could have answered all their objections and taken advantage of all their suggestions.

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Chapter 5

Parmenides and the Metaphysics of Changelessness

R. J. Hankinson

I offer this tribute to the life in ancient philosophy of my colleague Alex Mourelatos with great pleasure and not a little trepidation. Contributors were asked to restrict their thoughts to the Presocratics and the Sophists, the principal recipients of Alex's scholarly attentions, and I am at best an amateur in such a field. And when I think of Alex's own scholarship, the word that comes first to mind is 'care,' and in more than one sense. Alex's work in Greek philosophy has always been characterized by a meticulous attention to philological detail, an attention deriving from his unswerving belief that only if we get the texts right can we begin to essay anything like an interpretation of them. Equally, his interpretations themselves are the products of careful and rigorous philosophical reflection, as he seeks to steer that most delicate and demanding of courses between philosophical depth and vigor on the one hand and philological responsibility on the other. But finally, and perhaps most importantly, Alex's career has consistently exemplified the fact that he cares, deeply and fervently, about the proper practice of philosophy, about education, about his work, and no less about his students and colleagues.

1 Parmenides' 'Way of Truth': The Orthodox Interpretation

I first present as a piece of continuous text what scholars habitually treat as a set of discrete fragments:

[B2] Come, and I will tell you (and you having heard must preserve the story)
What are the only conceivable[1] roads of inquiry:
One, that it is and that it cannot not be,
Is the path of persuasion (for it attends upon the truth);
Another that it is not and that it must not be –
That indeed, I tell you, is a track quite inscrutable,
For you could neither recognize what is not
Nor speak of it: [B3] for the same thing is for thinking as for being.
[B6] What is to be spoken and thought of must be, since it can be
While nothing cannot; this I bid you ponder,
For from this first road of inquiry I restrain you,
But then also from that one, along which men knowing nothing
(5) Wander, two-headed: for inability in their breasts

[1] My translation treats *νοῆσαι* as a verb of thinking rather than knowing, following the orthodoxy of KRS and others (for example, Barnes, 1979, vol. 1, 158–9 and 329 n. 6), against Kahn (1968–9; 1969–70) and Mourelatos (1965; 1970, pp. 68–70); however, I agree with Mourelatos (p. 70) that 'the Archaic *νοεῖν* certainly does not mean "to think," "penser," or "denken" in any simple sense': see further below, §3 nn. 50, 51.

Sets up their wandering thought; and they are borne along,
Both mute[2] and blind, dazed, tribes without judgement,[3]
By whom both being and not being are thought the same
And not the same, and the path of all of them doubles back;
[B7] for never will this prevail, that things which are not are,
But restrain your thought from this path of inquiry,
Nor let habit born of long experience force you along this road,
Wielding an unseeing eye and an echoing ear
And tongue, but judge by reason the much-controverted proof
Spoken by me. [B8] Still a single story of a road
Remains: that it is. On this road there are signs
In plenty that what is is ungenerated and without destruction,
Whole, uniform, unshakeable, and complete.[4]
Nor was it at some time, nor it will be, since it is all now together
One, cohesive. For what coming-to-be will you seek for it?
How and from what might it grow? From not being I will not allow
You to say or to think. For it cannot be said or thought
That it is not. And what need would have impelled it
Later or earlier to come to be, beginning from nothing?
Thus it must either be altogether or not at all.
Nor will the strength of credibility[5] allow that from not being
It can ever come to be anything other than itself. For this reason neither coming to be
Nor being destroyed has Justice allowed, loosening her bonds,
But she holds it firm. And the judgement concerning these things lies in this:
It is or it is not. And so it is judged, as it must be,
That one be left unthought and unnamed (for no true
Path is it), while the other be treated as both being and genuine.
And how could what is be in the future? How might it come to be?
For if it came to be, it is not, and nor is it if it is going to be at some time;
Thus coming to be is extinguished and destruction unheard of.[6]

(Parmenides 28 B 2, 3, 6, 7, 8.1–21 DK)

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[2] *κωφοί*, usually rendered 'deaf' – but its core meaning in Greek is as I render it, often with the implication of being both deaf and dumb. I take it that Parmenides here seeks to imply that ordinary mortals do not even really succeed in saying anything (or at any rate, not what they take themselves to be saying: cf. B 8.50–6).

[3] *ἄκριτα φῦλα*: *κρίσις* and its cognates play an important role in Parmenides' poem (cf. B 8.37–8, B 8.15–16), and are variously rendered 'judgment,' 'discrimination,' or 'decision,' between which variants there are subtle and important differences; I am inclined to think that different renderings suit different contexts, but nothing in my argument here depends upon which translation to adopt. See further Mourelatos, 1970, pp. 101, 114.

[4] Reading *οὖλον μουνογενές τε καὶ ἀτρεμὲς ἠδὲ τέλειον* with KRS, p. 248, following Owen (1960, 76–7). *οὖλον μουνογενές*, with Simplicius, Clement and Philoponus, as opposed to *ἐστι γὰρ οὐλομελές*, as printed by DK (following Plutarch), which is the current orthodoxy (some, however, prefer *μουνομελές*: Gallop, 1984, 13, 64–5). I also adopt Owen's suggestion of *ἠδὲ τέλειον* in place of the mss *ἠδ' ἀτέλεστον* (cf. Mourelatos, 1970, pp. 95–6), although with some trepidation. The mss reading can be given a workable sense: rather than being *incomplete* (which would be impossible, given later developments in B 8), what-is is *uncompleted*, in the sense of having had no *process* of completion. But that seems improbably difficult, given B 8.32 and 42. At any rate, the variant readings here do not affect the case I have to make.

[5] On the proper translation of *πίστις* here, see Mourelatos, 1970, ch. 6; it is impossible without paraphrase in English to do justice to the full range of the word's semantic overtones: 'faith,' 'trust,' 'pledge,' 'guarantee,' 'conviction,' 'assurance,' 'evidence,' 'proof.'

[6] This translation is, at any rate in a weak sense, my own; I have of course made use of the manifold English versions which are readily available. My preferred rendering is perhaps most influenced by that of Gallop, 1984, with whom I agree in many particulars; also influential are Barnes, 1979, vol. 1; and KRS.

I am inclined to believe that this is pretty much how Parmenides actually wrote his poem; B 6 recognizably continues the thought of B 3,[7] which is in any case standardly appended to B 2. B 7 seems to me to continue directly the admittedly long and unwieldy thought of the bulk of B 6; and DK themselves print Frs 7 and 8 continuously. I think it helps to see this as a continuous, sustained argument, the philosophical fulcrum of which only appears around line 25 (B 8.3).[8] But my argument will lose little (or so at any rate I hope) in plausibility if one or two lines have been lost between B 3 and 6 and B 6 and 7. And having exhorted you to read it as a whole (a whole which of course continues another 40 lines to the end of B 8, and the transition to the much more fragmentary Way of Opinion), I will myself now deal with it in pieces.

After[9] promising to tell him both 'the unshakeable heart of persuasive truth,'[10] and to point out how mortals have gone so badly wrong in their view that the world is multifarious and changing (28 B 1.30–2 DK), Parmenides' tutelary goddess begins her instruction of her fortunate charge in lines 1–5. Two alternatives are apparently offered:

1 It is (and cannot not be)

and

2 It is not (and must not be)

Parmenides suggests that these two alternatives are exhaustive ('the only conceivable roads for inquiry'). Yet (1) and (2) apparently refer respectively to the Way of Truth and the Way of Ignorance; the Way of Opinion, the source of all mortal error, and the subject of vigorous polemic a few lines later, is not mentioned here at all. Road (2) is brusquely rejected in lines 5–8, a line of thought continued by B 3 and 6;[11] but it is not until lines 12–17 (B 6.4–9) that the Way of Opinion of the 'tribes without judgement' is broached at all.

The verbs in (1) and (2) lack explicit subjects: Owen (1960) supplies 'whatever can be thought of'[12] as is suggested by lines 8–10.[13] Take any particular (alleged) item of possible

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[7] Although there is a lack of a connecting particle between them, which does suggest that at least a line is missing here.

[8] 'line 25' (and similar) refer to my line-numbering of the continuous passage (the continuous numbers at the left margin); 'B 8.3' refers to the numbers in brackets, which are the line-numbers of the fragments as they are preserved in DK.

[9] Not, I think, immediately after: I suppose with Bicknell (1968a) that B 10 comes immediately (or shortly) after B 1, and that B 5 was interposed between it and B 2 (cf. KRS, p. 244); see also Bicknell, 1968b; see further n. 52.

[10] The text here is disputed: εὐπειθέος ('persuasive') has better manuscript support, and is defended by Mourelatos (1970, pp. 154–7), and adopted by Gallop (1984, 52–3); but most modern commentators (and DK) prefer εὐκυκλέος ('well-rounded'), the reading of Simplicius: cf., for example, KRS, p. 242; Barnes, 1979, vol. 1, p. 156. An alternative to ἀτρεμὲς ('unshakeable': cf. line 26, B 8.4) is ἀτρεκὲς, 'exact' (the case for which is strengthened if we see Democritus 67 B 9 DK as echoing Parmenides). Not much of substance turns upon either dispute.

[11] In common with KRS (p. 262) I am inclined to assign B 4 to the end of the poem; B 5 I place between B 1 and 2 (see nn. 9, 52).

[12] This is I think the modern orthodoxy in the English-speaking world at any rate: see Barnes, 1979, vol. 1, pp. 162–3; Gallop, 1984, pp. 7–12; KRS, p. 245 (however, see Mourelatos, 1970, p. xiv, who argues that such an interpretation is untenable for historical reasons). My interpretation does not, however, depend upon the truth of any particular view regarding the implicit subject of ἔστι.

[13] B 3, which is preserved elsewhere independently of B 2, is usually placed by editors immediately after B 2, where it fits neatly metrically (however, cf. KRS, p. 246 n. 2). I adopt the translation proposed by Tarán (1965, pp. 41–4) and accepted by, for example, Barnes (1979, vol. 1, p.157; p. 329 n. 4) and

thought: surely it (being singular) can only either be or not be. (1) and (2) are thus exhaustive; however, when considering the whole class of (conceivably) possible thinkable things, for all that has been said so far at any rate, some may be while others may not – and so there remains the distributive possibility, ascribed to the confused mortals who wander the Way of Opinion:

3 Some things are and others are not.

But the logical possibilities in each particular case are indeed exhausted by (1) and (2); moreover the rejection of the possibility of (2) will entail the impossibility of (3).[14]

Equally problematic is the interpretation of the predicate 'is' in (1) and (2). It may be existential:

1a It [that is, what can be thought or spoken of] exists (and cannot fail to exist);

equally it may signal an incomplete predicate; in other words, for some value of *F*,

1b It is *F* (and cannot fail to be *F*);

finally it has been suggested that it be taken veridically, yielding

1c It is true (and cannot fail to be true).

Each alternative has had its champions.[15] (1c) seems to me to be impossible: the rest of the poem clearly appears to discuss some thing or things, rather than the status of linguistic items. Of the remaining options, I favor the generality of (1b), since (1a) may be regarded as a substitution-instance of this case (at any rate if existence is a predicate). However, in what follows I shall speak in existential terms, partly for ease of exposition, but partly also because I suppose that in the most important part of the deduction it is indeed existence as such which is primarily (although not exclusively) at issue.

The modal parentheses of (1) and (2) are no less fraught with difficulty. Why should the object of thought be a necessary existent, if (1) holds, or a necessary non-existent, according to (2)? Moreover, why can't one think of contingent things, things which merely happen to exist? It looks as though the addition of the parentheses fatally compromises any claim of (1) and (2) to be jointly exhaustive of all conceptual possibilities.

Parmenides may simply have meant to say that you cannot think of non-existent objects, a line of thought that has tempted many philosophers: what you conceive of must exist. But that claim is ambiguous between

1* Necessarily, whatever can be thought of exists

and

KRS (pp. 246–7 n. 2), as against the traditional 'thinking and being are the same' (defended by Kahn, 1968–9, pp. 721–4).

[14] See Barnes, 1979, vol. 1, pp. 168–70; and Mourelatos, 1970, pp. 67, 71–3, 74–80, 90–3.

[15] See, for example, Owen, 1960 and Gallop, 1984, pp. 7–8 (taking it predicatively, in the manner of (1b)); Mourelatos, 1970, ch. 3 (a special version of the predicative reading); Kahn, 1968/9, 1969/70 (reading it veridically), as (1c); Barnes (1979, vol. 1, pp. 160–2) opts for the traditional, existential reading (1a); Furth (1968) supposes that the sense is a fusion of (1a) and (1b); KRS (pp. 245–6) that it involves both senses, although not in a confused manner.

1** Whatever can be thought of exists necessarily

Parmenides is often accused of failing to distinguish between (1*) and (1**): relying on the plausibility of (1) interpreted as (1*),[16] he concludes that, since everything is a necessary existent (after the manner of (1**)), nothing can be created or destroyed. Parmenides' argument against the possibility of change, and hence ultimately the argument against multiplicity,[17] rests at bottom on a fairly trivial (although certainly regularly committed) modal fallacy.[18]

This view is also part and parcel of a more general belief to the effect that what primarily drives Parmenides' argument here are considerations of a logical and semantic character: such considerations demonstrate the impossibility of referring to change (and multiplicity), and equally show that, in default of their being referable to, they *cannot* exist. Thus metaphysics is driven, in a way that one should find *prima facie* dubious, by logic and language; moreover it is so driven by fallacious inferences. Modern interpreters, while differing widely on points of detail, in general endorse some such account (at least in its broad outlines). The view is well expressed by Alex Mourelatos himself: 'in short, what we have here is an argument to a certain ontology by way of what might be called "depth grammar"' (1970, p. 92; cf. also pp. 51–4).

That orthodox view has, as orthodoxies will, much apparently in its favor. Consider lines 7–10a (B 2.7, 3, 6.1–2). Parmenides rejects (2) as 'a track quite inscrutable,'[19]

> For you could neither recognize what is not,
> Nor speak of it: for the same thing is for thinking as being.[20]
> (i) What is to be spoken and thought of must be, (ii) since (a) it can be
> While (b) nothing cannot.

Thus it is, apparently, impossible to refer to the non-existent, since what can be referred to, in thought or in language, must exist – the set of existents and the set of thinkable things are identical. Or at any rate the set of thinkable things is a subset, perhaps a proper subset, of the set of existents. Anscombe (1969) rightly notes that Parmenides only requires the implication from thinkability to existence in his argument, rather than its even more dubious converse, although she stigmatizes arguments involving both on the grounds of their modal fallaciousness. And she would of course be right to do so, if they are indeed supposed to be self-contained

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16 Well, whatever plausibility it possesses: I have never been able to see the attraction in the view that one cannot speak of non-existent things.

17 Whether or not it is Parmenidean. Barnes (1979) argues that everything in Parmenides' poem (at least as we possess it) is consistent with there being many unchanging things, and that it was left to Melissus to argue explicitly for the uniqueness of the Eleatic object. I find that view unpersuasive, but in any case whether or not it is true does not affect the rest of my argument.

18 So, roughly, Barnes (1979, vol. 1, pp. 165–7); for other versions of the 'modal fallacy' thesis, see Owen (1960, pp. 72–3 n. 46); Calvert (1974, pp. 150–1); Gallop (1984, pp. 25–8) considers the thesis, and then rejects it in favor of the view that the goddess's argument derives simply from rejecting the possibility that 'nothing' names anything; but his presentation is convoluted, and it is not clear that it gives her anything like an intelligible, let alone a decent, argument.

19 *παναπευθέα ἀταρπόν*, line 6; translations vary again here: Tarán (1965) gives 'a path wholly unknowable,' KRS (p. 245) 'an altogether indiscernible track,' Gallop (1984, p. 55) 'a path wholly unlearnable'; Mourelatos, however, prefers 'a path from which no tidings ever come' (1970, p. 55; cf. p. 5), while Barnes opts for (1979, vol. 1, p. 157), 'a track beyond all tidings.' These differences are not entirely trivial – but we can afford here to ignore their subtleties.

20 This last clause (B 3) is highly controversial; some (for example, Kahn) render: 'thought and being are the same,' which is perhaps a more natural rendering of the Greek; but it intrudes Berkeleyan considerations which are quite alien to Parmenides' argument.

arguments, drawing on purely logical considerations having to do with reference and existence – but that is precisely what I intend to deny.

It is at least *asserted* here that some relationship holds between what can be referred to and what is; and the inferential γάρ ('since') of line 9 strongly suggests that (ii) is supposed to lend support to (i), and to do so on general logical grounds. Yet it is very hard to see how, on any interpretation,

4 *x* can be

is supposed to entail (or even support)

5 *x* must be,

as the argument apparently requires. (4), which expresses (iia), is supplemented by

iib Nothing cannot be,

that is, presumably

6 What does not exist cannot exist;

and this allows us to reconstruct an argument along the following lines: suppose (a) something exists; suppose also that (b) it is not a necessary existent, i.e., that (c) it might not exist. But if (c), then (d) at some time *t* it will not exist; but then at *t*, by (6), (e) it cannot exist; but then it is a necessary non-existent, contradicting (a); hence (a) and (b) cannot hold together, and hence (f) if it exists it is a necessary existent. But the crucial step in that argument, that from (d) to (e) by way of (6), is valid only if (6) is read as

6a What does not exist is not a possible existent,[21]

rather than as

6b It is not possible that what does not exist exists.[22]

(6b) is a trivial truth of no logical leverage, (6a) a powerful principle with nothing to be said for it. By presenting the vulpine (6a) in the sheepish garb of (6b) Parmenides helps himself illegitimately to the conclusion that anything which exists does so necessarily, and hence (via a standard ancient inference, of which I shall have a little more to say later on) eternally. Equally, of course, Parmenides could have supposed that what exists must exist, since

7 If something exists, it cannot not exist;

(7) is again ambiguous between plausible but impotent and implausible but powerful readings,[23] and thus he could have saved himself the bother of constructing the invalid inference from (a) to (f), if indeed he ever did so. But that, too, is something I want to deny.

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[21] Formally: $\forall \mathbf{x}[\neg \mathbf{Ex} \rightarrow \neg \mathrm{M}(\mathbf{Ex})]$.

[22] Formally: $\forall \mathbf{x}[\neg \mathrm{M}(\mathbf{Ex} \,\&\, \neg \mathbf{Ex})]$.

[23] At risk of tedium: (7a) $\forall \mathrm{x}[\neg \mathrm{M}(\mathbf{Ex} \,\&\, \neg \mathbf{Ex})]$; (7b) $\forall \mathrm{x}[\mathbf{Ex} \rightarrow \neg \mathrm{M}(\neg \mathbf{Ex})]$.

2 The Metaphysical Interpretation

I think Parmenides can be defended against these counts of logical malpractice. If I am right, he *argued* for the strong modal conclusion that what exists must do so eternally; and he did so not by invoking some dubious principle of formal modality, but rather by way of a directly metaphysical appeal to the conditions of the possibility of change and generation themselves. On my reading, the semantic contentions follow from, rather than functioning as premises for, the metaphysical conclusion.

Parmenides supposes that ordinary mortals are utterly confused; they are ignorant, schizophrenic, wandering, dazed, sensorily deprived, unable to say anything, lacking in judgment (lines 12–17, 21–2; B 6.4–9, 7.4–5), people indeed

> By whom both being and not being are thought the same
> And not the same, and the path of all of them turns back again:
> For never will this prevail, that things which are not are. (lines 16–18, B 6.8–9, 7.1)

Whatever the problems of interpretation posed by lines 16–17 (and we shall return to them briefly presently), scholars have been unanimous in supposing that line 18 reiterates a *semantic* ban on talk of non-being, one already somehow established by the earlier argument. Certainly, as I present the fragments continuously, line 18 must have something to do with the rejection of the mortal confusion just canvassed, and which lines 19–22 (B 7.2–5) reinforce. But I can see no obvious reason for not taking line 18 rather to impose a *metaphysical* embargo on coming to be. The point is not that it is not logically possible that non-existent things exist, a claim ambiguous in a now familiar fashion, the ambiguity of which Parmenides would then seek to utilize, again in familiar fashion, to draw (presumably unwittingly) a fallacious conclusion. Rather he asserts that things which are not cannot come to be; this is a physical impossibility, the argument for which is not finally forthcoming until lines 28–43 (B 8.5–21).

The path of all mortals[24] doubles back on itself: they seek to make progress but in fact do not. Moreover, the image implies that they become embroiled in self-contradictions, something which lines 16–17 strongly suggest. But how do they do so? In what sense do they suppose that 'both being and not being are … the same and not the same'? Not, I take it, explicitly: Parmenides is not ascribing to all ordinary people the belief *de dicto* that things both are and are not the same and not the same. Such a 'belief' might, *pace* Aristotle at any rate, just about be ascribed to Heraclitus, but whatever else he may have been, he was no ordinary mortal (and in any case there is no reason to think that Heraclitus either would or should have been uppermost in Parmenides' mind here: see n. 24 above). Rather they are *committed* in some way to hopelessly contradictory beliefs. How so? Well, clearly enough, they believe that being and not being are not the same. That much they do believe *de dicto*: as Parmenides puts it later on, as he begins his *segue* into the Way of Opinion, 'they set up two forms in their minds for naming, one of which is improper' (B 8.53–4; cf. B 8.38–9).[25] But the second (not-being) is

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[24] I take *πάντων* in line 17 to refer to the mortals themselves, as do KRS (p. 247), and Mourelatos (1970, pp. 77–8, n. 7), rather than to things ('the path of everything is backward-turning'), a view favored among others by Tarán, who sees a reference to Heraclitus's fluid metaphysics here; this is rightly rejected by Mourelatos (*loc. cit.*), Gallop (1984, p. 11 n. 33) and Barnes (1979, vol. 1, p. 169 n. 19) although the two last translate the line in a studiedly neutral fashion.

[25] Or (reading *γνώμας* for *γνώμαις*, with DK, KRS, Tarán) 'they made up their minds to name two forms'; little turns on this. Rather more serious is the question whether *τῶν μίαν οὐ χρεών ἐστιν* can mean 'one of which they should not [have named],' *vel sim.*, (as I take it). The objection is that, for that sense, Parmenides should have written *ἑτέρην* in place of *μίαν*: and commentators impressed with that objection have chosen to render either (i) 'of which it is not necessary to name a one,' that is, a unity of

improperly named precisely because ordinary people suppose that not-being can be made to do the same sort of causal work as being: it is in this sense supposed, *de re* as it were, by muddle-headed mortals to be on a par with being (and hence being and not-being are the same *in this respect*) – whereas of course it cannot be.[26]

Read thus, the core of Parmenides' thesis is directly metaphysical. Everything so far is building up to the only argument upon which Parmenides intends to rest any weight, and that is the one involving physical and metaphysical considerations to be found at the beginning of B 8:

> Still a single story of a road
> Remains: that it is. On this road there are signs
> In plenty that what is is ungenerated and without destruction,
> Whole, uniform, unshakeable, and complete. (lines 23b-7, B 8.1–4)

This follows immediately, in my presentation at any rate, upon the goddess's entreaty to Parmenides not to follow the wayward mortal route, with its reliance on deceptive sensation and speech[27] (lines 19–22, B 7.2–5), but to 'judge by reason' her 'much-controverted proof.'[28] This, I take it, is what follows: everything so far has been propaedeutic exhortation, and the preliminary statement of what are to be conclusions of the subsequent argument.[29] The 'remains' of line 28 might suggest that the surviving road survives because it has already been singled out by an eliminative argument, which would certainly cause severe difficulties for my interpretation – but again I do not think the Greek demands such a reading. Such a road 'remains' not because all others have already been excluded, but rather because it is, as we shall see in what follows, the only coherent road.

The 'signs' are presumably the various stages of the subsequent argument,[30] which will show that what is is eternal and unchanging. Scholars have disagreed as to how precisely the program offered in the first lines here can be placed into correspondence with what follows in the remainder of B 8;[31] but it is usually supposed that the proof falls into four main stages: B 8.5–21 (lines 27–43 above), B 8.22–5, B 8.26–31, and B 8.32–49, a substantial part of which (B 8.34–41) is of the nature of a digression, and perhaps misplaced.[32] Some (for example, Mourelatos, 1970, p. 95) take lines 27–8 to be part of the program; I agree with Barnes (1979, vol. 1, p. 192) that they cannot be, but are part instead of the argument for that program's first *probandum*, namely that what is is ungenerated and indestructible.

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them (which is very awkward), or (ii) 'of which they needs must not name so much as one' (KRS, pp. 255–6), which has Parmenides anticipate here the cosmology of Light and Night of the Way of Opinion. (i) was originally proposed by Croissant (1937), and was accepted by Tarán and Mansfeld; but it has little to be said for it (see Mourelatos, 1970, pp. 80–5).

[26] Barnes (1979, vol. 1, pp. 168–9) rejects this sort of interpretation, in the grounds that it would have Parmenides anticipate without warrant here the conclusions of an argument yet to come. I disagree: see further below, §3.

[27] I take the reference to the tongue to be the power of speech, rather than the sensation of taste (cf. Barnes, 1979, vol. 1, p. 297); the adjective 'echoing' seems to go with both 'ear' and 'tongue' (cf. KRS, p. 248; Gallop, 1984, p. 63), which suggests that it is the production and reception of deceptive speech which is at issue here (however, see Mourelatos, 1970, p. 77 n. 6).

[28] Or 'challenge' (Mourelatos), or 'argument' (Tarán), or 'disproof' (Gallop), or 'refutation' (Barnes, KRS): the word is ἔλεγχος.

[29] See further, §3 below.

[30] However, see Mourelatos, 1970, ch. 4 (esp. p. 94), on the sense of σήματα, 'signposts.'

[31] See Mourelatos, 1970, pp. 95–6; Barnes, 1979, vol. 1, p. 192.

[32] Thus for example, KRS (pp. 249–54), and Mourelatos (1970, pp. 96–135); cf. Barnes (1979, vol. 1, pp. 179–80); Gallop (1984, p. 13) supposes that the whole argument for completeness is to be found in B 8.33–4, and the rest of the Way of Truth is an aside.

Barnes also writes 'I incline to associate *mounogenes* ["uniform"] closely with *atremes* ("motionless" ["unshakeable"]), and I suppose that "monogeneity" and immobility are jointly advocated in lines 26–33' (1979, vol. 1, p. 180). Grammar favors this over Mourelatos's proposal to take μουνογενές rather with οὖλον (1970, p. 113); but I prefer to think that μουνογενές stands on its own, in the now generally-accepted sense of 'uniform' (rather than '*sui generis*,' or, even worse, 'uniquely born').[33] On this reading, the argument signposted by οὖλον occupies only one line, B 8.22; B8.23–5 then argues independently for uniformity of texture, 'monogeneity.'

There are thus five major arguments in B 8, the first of which begins at line 27 (B 8.5) and proceeds until line 43 (B 8.21), encompassing the proof of ungenerability and indestructibility.[34] It begins as follows:

> Nor was it at some time, nor will it be, since it is all now together,
> One, cohesive. (lines 27–8a, B 8.5–6)

I take line 27 to state the conclusion to be argued for: and thus I suppose it to mean 'it is not the case that it was at some particular time (but not at another), nor that it will be at some particular time (but not at another).' The subsequent 'since' clause then expresses the reason why this is the case: it is now completely and cohesively itself. Mourelatos, in the course of a subtle analysis of the passage (1970, pp. 103–10) arguing that Parmenides is characterizing his 'is' here as self-consciously tenseless, distinguishes four possible alternative ways of taking this line: (i) as denying that τὸ ἐόν has any temporal attributes at all (it lies outside time); (ii) it exists in a 'specious present'; (iii) it exists continually (there is no need to say either 'it was' or 'it will be'); (iv) 'nor was it at some time in the past, *but is no longer* (= has perished); nor will it be at some time in the future, *but is not yet* (= will be born); it is now,' a construal he attributes to Fränkel (1960, p. 191 n. 1).

After rightly rejecting (i)-(iii), Mourelatos (1970, p. 106) remarks that 'the weaknesses of this interpretation [that is, (iv)] are immediately clear … The logical connection in this case is so trivial that the ἐπεί, "since," appears otiose … [Moreover] those who think in terms of generation and perishing envisage, primarily, the possibility of something being *born in the past* and/or *perishing in the future*. But the translation of B 8.5 just given says nothing against them.'

But if my translation is right, the point being made here is not trivial – it is not just that, since it now is it can't either now have perished or not now have been generated (as Mourelatos supposes must be the force of such an interpretation here – which would indeed be feeble). Rather it is *because* of the attributes *now* possessed by τὸ ἐόν – its completeness, self-sufficiency, and so on – that it makes no sense to suppose that it could fail to exist at any time, and hence that there could be any time – past or future – at which it was either generated or destroyed. The 'since' clause is then perfectly well motivated – but the argument which will underwrite it (and which will ultimately license, in this case at any rate, the initially suspect inference from possibility to necessity) has yet to be produced. Parmenides is here stating the real nature of what is, which is to be established by the argument of what follows, which certainly does have to do with generation and perishing.

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[33] It was by supposing that it must have something like the latter sense, which would sit very badly with 'ungenerated' in the previous line, that DK in their critical apparatus rejected it; I find it hard to know what might be made of the alternative readings οὐλομελές ('whole-limbed': DK) and μουνομελὲς ('single-limbed': Gallop); cf. n. 4 above.

[34] Whether there is supposed to be a separate argument for indestructibility contained in those lines, or whether the indestructibility of what is is taken to follow immediately from its ungenerability by parity of reasoning is an issue we will take up in a moment.

Moreover, Mourelatos's subsequent complaint that (iv) requires a 'construction of the text … [which] is hardly plausible,' has less force against the slightly different construe which I adopt, which only requires placing a little extra weight on the ποτε ('at some time').[35] Mourelatos himself concedes that if Parmenides does here 'register his awareness of the tenseless character of the ἔστι,' he does so 'not without a certain infelicity' (*ibid.* p. 106). I suppose, however, that he does no such thing, and that the 'now,' which is so troublesome to that interpretation, is to be taken literally.[36] It is because what is is *now* so completely self-cohesive (this I take to be the force of *suneches* here)[37] that there is no prospect of its ever not being. This is reinforced by the argument which immediately follows:

> For what coming-to-be will you seek for it?
> How and from what might it grow? From not being I will not allow
> You to say or to think. For it cannot be said or thought
> That it is not. (lines 28b-31a, B 8.6b-9a; cf. lines 41–2, B 8.19–20)

If what is has a beginning, it must be generated. If something (call it *x*) comes to be, then it must come to be from not being, otherwise trivially it will not have *come to be* at all. But it cannot come to be from not being, since non-being cannot causally account for its being; the non-existent, being nothing at all, can have no properties, and hence *a fortiori* no causal properties. Only if the non-existent could have some form of existence in some way would the story begin to make sense; what's more, it needs to be full-blooded existence at that – some shadowy Meinongian *Sosein* won't do – but that is an incoherent supposition (and is precisely one part of the contradiction attributed to mortals in lines 16–17 (B 6.8–9)).

That argument disposes of there being any causal explanation of *x*'s coming to be: but might not *x* come to be spontaneously? The following lines seek to eliminate that possibility:

> And what need would have impelled it
> Later or earlier to come to be, beginning from nothing?
> Thus it must either be altogether or not at all. (lines 31b-33, B 8.9b-11)

Suppose (*per impossibile*) that *x* comes to be, and hence comes to be from not being. Since its prior non-existence cannot explain *x*'s subsequent existence, there can be no *reason* why *x* comes to be at all; but if there is no reason why *x* comes to be, then there is no reason why it should do so at *t* rather than at *t′*; hence, by a version of the Principle of Sufficient Reason (PSR), if it comes to be at *t*, it should do so at *t′* as well; but it is impossible for it to come to be at both *t* and *t′*;[38] hence it can never come to be. Line 33 expresses the obvious conclusion of the argument: and I take it

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[35] But in any case a similar construction is surely required by lines 41–2 (B 8.19–20).

[36] This is not to rule out the possibility that Parmenides may be in some way *committed* to a tenseless ἔστι, or even that elsewhere he urges it, although in fact I do not think that he does. Later on he does argue that you cannot restrict what is to a particular time – but that does not entail that Parmenides thought that time itself would cease to exist, nor should he necessarily have thought any such thing. The issue turns on whether time is something absolute and independent of change, or whether it is derivative from it; and this is, like almost everything else Eleatic, controversial, and controverted. See further Barnes, 1979, vol. 1, pp. 190–4; Owen, 1966; Schofield, 1970.

[37] Against Barnes (1979, vol. 1, p. 192), I do not take συνεχές here to signal mere temporal continuity (which would indeed make the 'since' clause redundant) but rather as pointing to the characteristics of τὸ ἐόν in virtue of which it has such continuity. Most translators render συνεχές here as 'continuous' (KRS, Gallop, Barnes), interpreting that either temporally or spatially; I follow Mourelatos in supposing it to have the connotation rather of cohesiveness, a reading which sits well with the later occurrences of the term and its cognate συνέχεσθαι: B 8.23, 25.

[38] Is this true? Could not *x* both come to be at *t* and at *t′*, provided that it ceased to be between the two of

that for it to be 'altogether' is, partly at any rate, for it to be eternally (and hence necessarily). Here, then, at last is the argument we needed to account for the modal parentheses of (1) and (2): it turns out, after consideration of the metaphysics of generation and destruction, that if something is, it is of necessity, while if it is not it is impossible. Equally, we can now motivate Parmenides' move from (4) to (5): if something can be, then it will be, and will be of necessity, since (6) (and so too for that matter (7)) holds as a matter of *de re* necessity, which entails that only what actually exists is even capable of existence; hence what can exist must do so.[39]

A further consideration is added in the succeeding lines, although precisely what is a matter of controversy:

> Nor will the strength of credibility allow that from not being
> It can ever come to be anything other than itself. For this reason neither coming to be
> Nor being destroyed has Justice allowed, loosening her bonds,
> But she holds it fast. (lines 34–37a, B 8.12–15)

Karsten, followed by Reinhardt (and others),[40] proposed emending 'not being' in line 34 (μὴ ἐόντος) here to 'being' (τοῦ ἐόντος). The usual interpretation of the emended text (*v.*, for example, Gallop, 1984, pp. 15–16) gives Parmenides a dilemmatic argument: '*x* cannot be generated from not being; but nor yet can it be generated from being; hence it cannot be generated'; but there is (as Mourelatos rightly notes) no need for him to set up the argument in this way.[41]

Barnes, translating 'nor ever from what is will the strength of trust allow it to become something apart from itself,' supposes rather that the lines give Parmenides' explicit argument against destruction, an argument otherwise lacking from the passage.[42] This is ingenious, if a little strained: on this reading the argument concerns what is changing into *something else*; its consequent destruction, which ought on this account to be the prime subject of the argument, still needs to be inferred. Moreover, lines 35–7, referring to Justice, need not be taken to imply that a specific argument against destruction has already been given. Such an argument might be assumed to be suppliable by parity of reasoning;[43] or these lines might themselves be thought to constitute the argument, building on the implication of line 33 that whatever is, is eternal (and hence evidently indestructible): Justice will not relax her vice-like grip on its being.

What, then, are we to make of lines 34–5? I take it that they are simply supposed to rule out the possibility of what is changing into anything else; from its not being something else (yet), the condition it must be in prior to the supposed change, it cannot come to be that something else, since then once again non-being would have to be the cause of being.[44] The upshot, spelled out in lines 38–40 is that the judgment promised earlier is now unavoidable: only the

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them? No, because PSR applies to any times *t*, *t′* and hence to all times. Thus the argument does not turn on the (suspect) Lockean principle that 'one thing cannot have two beginnings of existence' (*Essay* II.xxvii.1).

[39] Worth comparing with this construal of the argument is Leibniz's view that 'God alone (or the necessary being) has this privilege: he must exist if he is possible' (*Monadology* §46).

[40] The emendation is accepted by Tarán (1965, pp. 95–104), Barnes (1979, vol. 1, pp. 188–90) and Gallop (1984, p. 64), rejected by KRS (p. 249) and Mourelatos (1970, p. 101 n. 11).

[41] Although later skeptics certainly did: see Sextus, *M* 10.326–7, 331–2; *P.* 3.112.

[42] Unless an unconvincing emendation is adopted at line 41 (B 8.19): see Gallop, 1984, p. 35 n. 44; Tarán, 1965, p. 104; again, Sextus explicitly provides the twin argument against perishing (*M.* 10.344–5; *P.* 3.113–14): but he does not attribute any of his argumentation in these passages to Parmenides or any other Eleatic.

[43] So Gallop (1984, pp. 15–16); cf. Aristotle, *Cael.* I.12, on the mutual entailment of ungenerability and indestructibility.

[44] Note that, on this reading, one may still, if one wishes, discern an implicit argument against destruction here, *à la* Barnes.

road of being remains, the other being 'unthought and unnamed'; and this way of putting the point here further suggests that Parmenides did not intend the earlier considerations to form an independent, self-contained argument for that conclusion.

3 Strengths and Weaknesses of the Metaphysical Interpretation

It remains to respond to some obvious objections to my view, as well as considering what further strengths it may possess. The thesis I have urged has, effectively, two components to it: Parmenides' argument for the necessity of what is does not rely on any dubious modal inference; and nor is it at bottom semantic in character. Some may well accept the first claim while rejecting the latter, and contending that it is, indeed, the ban on referring to what is not which is doing the heavy lifting here. I find it hard to see how any plausible argument can be constructed on such a basis[45] without imputing to Parmenides particularly gross confusions regarding the meaning of 'nothing,' although that of course is no guarantee that he was not, in fact, guilty of them. Moreover, if the bar on speaking of nothing is derived purely from semantic considerations, it is hard to see why it should have any tendency in and of itself to establish the conclusion Parmenides wants, namely the eternal existence of whatever is spoken of. These considerations, I take it, stand in favor of my thesis.

Against it, most obviously I suppose, is the fact that Parmenides delays any attempt to prove his point, on my understanding, until he is more than twenty lines into the main body of the continuous argument. In another context,[46] Barnes rejects an interpretation of Parmenides' text on the grounds that it requires us to suppose that an earlier passage in the poem presupposes the conclusions of a later argument: 'Parmenides was not so cack-handed a fellow,' he says (1979, vol. 1, p. 169). I have to suppose that he was, both in the case that Barnes discusses, and indeed more generally. But is such arrangement in any case necessarily ham-fisted? It is, I think, a perfectly Greek habit to state the conclusions of an argument before the premisses upon which they rest (compare Plato's argument for the soul's immortality at *Phdr.* 245c–246a). Such a manner of presentation may not be to our taste; but our tastes are not to the point.

But consider again lines 7–10a, which first justify the rejection of route (2). As I admitted earlier, at the very least they *assert* that some relationship holds between what exists and what can be referred to; and at first sight it looks as though they are supposed to contain a self-contained argument. It is *because* you cannot 'recognize what is not nor speak of it' that it cannot exist, *because* 'the same thing is for thinking as being,' *because* 'what is to be spoken and thought of must be, since it can be while nothing cannot.' But once more, I simply suppose that these are preliminary reasons, the justification for which ultimately is to be derived from further causal and metaphysical argument. They are not, first appearances aside, meant to be free-standing, albeit compressed, arguments. It might be objected that the exhortation to 'judge by reason the much-controverted proof spoken by me' (ἐξ ἐμέθεν ῥηθέντα) looks backward, and hence must refer to a proof already offered.[47] But this seems to me to mistake the force of the aorist participle, which can, in Greek no less than in English, perfectly well take the sense '*when it has been* spoken by me.'

Perhaps the biggest stumbling-block to my interpretation arises in lines 29b–31a (B 8.7–9):

> From not being I will not allow
> You to say or to think. For it cannot be said or thought
> That it is not.

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[45] For an attempt to do so, see Gallop, 1984, pp. 24–8.

[46] It has to do with the interpretation of lines 16–17, B 6.8–9: see further above, n. 26.

[47] So (I think) Barnes (1979, vol. 1, pp. 170–2); but contrast Mourelatos, 1970, p. 90–1.

Here we are squarely in what I take to be the heart of the argument: yet it looks as though the ban on referring to the non-existent is here offered as the *reason* why nothing can come to be, reversing my preferred order of logical dependence. I concede that that is, indeed, the natural way of taking the Greek. One might suppose that the ὅπως of line 31, rendered here (usually) as 'that', had rather the sense of 'how': you can't even conceive of how what is could fail to be, hence it cannot fail to be. Alex Mourelatos discusses the possibility of reading ὅπως and ὡς here and elsewhere adverbially (1970, pp. 49–51, 70–1), and argues that 'the best understanding … will be achieved if we allow ourselves to construe the ὅπως/ὡς ἐστι simultaneously, or indifferently, as object clauses and as relative clauses' (p. 70); but I hesitate to avail myself of that particular lifeline, since it seems to me that the 'adverbial' reading confuses rather than helps matters in most of the other cases (crucially in lines 3–5, B 2.3–5).

The first sentence is not in itself a problem here: the goddess may very well mean that she will not allow you to say or think that something can arise from non-being, because that is a causal impossibility: the prohibition is derived from reasons of metaphysical hygiene rather than any direct semantic constraint. The difficulty is caused by the second sentence, with its second connective 'for.' One might suggest emending γάρ to δή, which would have the effect of reversing the logical dependence, making the sentence a consequence of what has gone before rather than a reason for it: but I shrink from prescribing such surgery in a case where the manuscripts show no sign of textual infirmity. I suggest that we need to read as the implicit subject of the ἐστι 'the potential generator'; thus this sentence amounts to little more than an emphatic repetition of the previous one: it is *generation* from the non-existent which is unthinkable.

It might also be thought to tell against my account that Plato, for one, apparently thought that Parmenides' fundamental concern here was with the logic of non-being: so, at any rate, he seems to suppose in the *Sophist* (where he quotes lines 18–19 (B 7.1–2) at 237a). But Plato is not a uniformly reliable reporter of the interests of his predecessors, and he is certainly not above interpreting their views in ways which are more conducive to his own argumentative interests than they are faithful to the text (witness his portrait in the *Parmenides*; or his reading of Protagoras's Man-Measure in *Theaetetus*). And there is nothing particularly surprising or reprehensible about this: the history of philosophy is to a large extent the history of fruitfully creative misinterpretation.

On the other hand, the evidence in Aristotle, while mixed, on balance tends to suggest that he took the metaphysical challenge to be the serious one. This is true, I think, of his treatment of Eleatic argument in *Ph.* I.2–3, where, while he does treat of semantic issues, none of his argument turns on refuting the claim that talk of non-being as such is meaningless; rather he supposes Parmenides' mistake to lie in his failure to understand the Aristotelian multivocity of 'being' and 'not-being.' But this in fact favors the metaphysical argument: it is because Parmenides falsely supposes that the generation of *F* from not actually being *F* involves its creation from the absolutely non-existent that, in Aristotle's view, he falsely concludes that generation is completely impossible. And this emerges with absolute clarity in *Ph.* I.8, where, having crafted his own account of the logic of change in *Ph.* I.6–7 against the shadow of Parmenides, Aristotle seeks directly to show how it manages to avoid the Eleatic trap, by denying that when something comes to be it must do so from the *absolutely* non-existent: see esp. I.8, 191a23–34.[48]

Moreover, what remains of later Presocratics, Empedocles, Anaxagoras and the Atomists, strongly suggests that they supposed the principal force of Parmenides' argument was to

[48] At *Metaph.* XIV.2, 1088b35 ff., he remarks that some people are led astray by supposing that they need to answer Parmenides' claim that 'never will this prevail, that things which are not are' (line 18, B 7.1) by positing the existence of what is not. But these people are 'treating the difficulty in an old-fashioned manner'; and in any case, this does not necessarily favor the semantic interpretation.

establish the impossibility of generation, destruction and change; and they sought to combat his positions on metaphysical grounds, rather than by attacking any alleged semantic foundations for those beliefs, as they surely ought to have done had they thought them to be so founded. Empedocles supposes that all generation is really re-arrangement (a view in a sense accepted by Aristotle): 'generation' is in fact a misnomer, and for Parmenidean reasons – but once one sees that it is so, the way lies open to the rehabilitation of change. Equally, Anaxagoras's physics of total intermixture shows how macroscopic change is possible as a result of the selective filtering out of proportions of the intermixed stuffs – but those stuffs themselves are inviolate, as of course are the atoms of Democritus and Leucippus. And when Leucippus invites us to embrace the initially unpalatable conclusion that what-is-not (the void) does in fact exist (Aristotle, *Metaph.* I.4, 985b4–10; *GC* I.8, 324b35–325b6 = 67 A 6–7 DK; cf. Aristotle, *Ph.* I.3, 187a1–3), he counters Parmenides not by offering a semantic argument in favor of the coherence of talk of not-being, but rather by showing that nothingness can be made to figure in a coherent causal account of the functioning of the universe, not absurdly as a material cause of being, but rather as a necessary condition for the sort of motion in which the atomist picture of change consists.

Finally, Parmenides' own successor, Melissus, gives pride of place to the causal argument:

> what is always was what it was and always will be. For if it had come into being, necessarily before coming into being it would have been nothing. Yet if it had been nothing in no way would anything have come to be from nothing. (Simplicius *In Ph.* 162.24–6 = 30 B 1 DK)

One further difficulty remains: why, on my view, should Parmenides think that whatever can be thought of must exist? Why can't he allow you to think of non-existents? The answer is, I think, that 'thinking of' (and perhaps also 'talking of': *φράζω*) functions as 'perceive' standardly does in English (and as do its equivalents in Greek), as a sort of success-verb: for something to be a genuine thought, it has to latch onto *something*. After all, the sorts of thoughts that Parmenides has in mind, on my view, are thoughts about the structure and origins of things. Even if you can perfectly well think of non-existent things like centaurs, such thoughts are of no value in understanding the world. You can perhaps talk about chimeras: but you cannot single them out or recognize them (this, I take it, is the point of the language of lines 7–8, B 2.7–8).[49]

This interpretation allows us to accommodate some of the results of von Fritz's investigations into the early history of *νοῦς*, *νοεῖν* and their cognates (1943, 1945–6), and their connections with the idea of a quasi-perceptual grasp of things, without going all the way with those who suppose it better rendered as 'know.'[50] When you *νοεῖν* something, you are in touch with it – there's something there – but you do not necessarily know it (you may very well mistake its identity – as of course do the confused mortals).[51]

All of this is entirely of a piece with those who emphasize (rightly) that Parmenides cannot mean to exclude all negative language as such, since he employs it. In Mourelatos's felicitous characterization, these 'are not negations made *de re*, but rejections made *de dicto* of negations made *de re*' (1970, p. 53). In fact, adopting this intermediate position allows us subtly to shift the point of the interpretation being offered. It still stands that no independent semantic argument is supposed by Parmenides to ground his rejection of change; but there is, now, in a

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[49] On this issue, see Barnes (1979, vol. 1, pp. 171–2). But his objections to this line of thinking are not fully stated ('the argument deserves lengthy development; but in the end it is, I think, unconvincing'), and his observation that 'natural scientists regularly study idealized entities' is not to the point.

[50] Notably Mourelatos, 1970, pp. 68–70; Kahn, 1968/9, p. 723; see n. 1 above.

[51] Congruently I accept that *φράζειν* means something like 'indicate verbally,' without supposing that this entails that all such speech is, in the strong sense, veridical, or that *λέγειν* should be glossed as 'say truly': see Mourelatos, 1965, and Kahn, 1968/9; against, see Barnes, 1979, vol. 1, pp. 158–9, 329 n. 6.

certain sense a prohibition on speaking of what is not – not a blanket refusal to allow any sense at all to such talk, but rather an insistence that, since definitionally it can have no reference, it cannot function in any intelligible account of the make-up of the world. Thus it is no longer quite right to insist that Parmenides' real argument only begins in B 8: the way has already been prepared for it. Moreover, the considerations having to do with reference and those having to do with metaphysics are mutually-supporting (although not for that reason necessarily viciously circular).[52] It is in precisely this sense that, for the goddess,

> it is all one to me
> where I set out from: for there shall I return once again. (B 5 DK)

4 Conclusions

Parmenides seeks to demonstrate the impossibility of generation (and hence change) dilemmatically: on the one hand the notion of caused generation turns out to be incoherent, while the supposition of uncaused generation, on the other, makes it inexplicable. Neither arm of the dilemma is successful. One cannot simply invoke PSR in order to rule out uncaused change, since PSR is at best an empirical hypothesis and not some Leibnizian *a priori* law of thought;[53] and a suitably sophisticated analysis of the logical form of change, one which recognizes the ambiguity of 'from' in propositions such as '*x* comes to be from *y*,' will dispose of Parmenides' bomb. But it needed an Aristotle to disarm it.

The basic principle involved, namely:

P1 Nothing comes to be from nothing,

is not original to Parmenides (it first occurs in a fragment of the sixth-century lyric poet Alcaeus, although we do not know in what context;[54] its early history has been ably traced by Alex Mourelatos):[55] but its use in destructive argument certainly is. P1 is ambiguous between the causal principle

P1a Nothing comes to be causelessly,

and the conservation principle

P1b Nothing comes to be except from pre-existing matter;

and that ambiguity is not always patent. Indeed, distinguishing (P1a) from (P1b) is the first step towards solving the Eleatic puzzle, as Aristotle (certainly: *Ph.* I.7, 190a14–31; cf. *Metaph.* V.24; *GA* I.18, 724a20–34) and Plato (possibly: *Phd.* 103b) realized. Moreover, as Hume was to show, neither version can be accepted as an *a priori* truth: both the causal principle and the conservation principle (at any rate crudely interpreted as asserting the conservation of matter) are rejected by the standard interpretation of quantum physics; and whatever else may be true of quantum physics, it is not logically incoherent.

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[52] See Gallop (1984, pp. 18–19) on the issue of circularity; I suppose B 5 to fit between B 1 and 2; see n. 9 above. I hope elsewhere to be able to follow out further the implications of the poem's 'circularity.'

[53] Cf. Leibniz, *Monadology* §32; on the status of the principle, see Kant, *Prolegomena* §4.

[54] Alcaeus, fr. 76 Bergk; Mourelatos, 1981, pp. 132–3 discusses this text.

[55] Mourelatos, 1981.

Yet there is a price to pay for rejecting such principles. In doing so, one effectively relinquishes the hope of making everything in the world fully intelligible. It may be that we do indeed have to countenance such a loss: but loss it indeed is, and at the very least it is true that principles like (P1a) and (P1b) function both as powerful heuristics and useful methodological principles in the pursuit of understanding the world, a pursuit which Parmenides so radically and influentially affected. For this reason too I prefer to see Parmenides as the originator not of a fallacy of naïve semantics, but as a pioneer explorer, untutored certainly, but far from jejune, in the jungles of cause and explanation.[56]

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[56] This paper is a much-expanded version of the view I expressed in my 1998, ch. 3.1d. I should like to thank the participants at the Austin conference for their stimulating discussion.

Chapter 6

Parmenides and Plato

Charles H. Kahn

For Alex Mourelatos

This seems a happy occasion to return to Parmenides, in order both to clarify my own interpretation of Parmenidean Being and also to emphasize the affinity between what I have called the veridical reading and the account in terms of predication that Alex Mourelatos gave in his monumental *The Route of Parmenides*.[1] It is good to have this opportunity to acknowledge how much our views have in common, even if they do not coincide. And perhaps I may indulge here in a moment of nostalgia, since Alex and I are both old Parmenideans. My article 'The Thesis of Parmenides' was published in 1969, just a year before Alex's book appeared. That was nearly thirty years ago, and it was not the beginning of the story for either of us. My own Eleatic obsession had taken hold even earlier, with an unpublished Master's dissertation on Parmenides, just as Alex had begun with a doctoral dissertation on the same subject. So, for both of us, returning to Parmenides may have some of the charm of returning to the days of our youth.

I want to begin, however, not with Parmenides himself but with his impact on Plato, and with the curious fact that Aristotle gives an entirely different account of the background of Plato's theory of Forms. Aristotle never mentions Parmenides in this connection; instead it is Socrates, the Pythagoreans, and the Heraclitean Cratylus whose combined influence is said to have led Plato to posit metaphysical Forms (*Metaph.* I.6). It is striking how much emphasis Aristotle places here on Pythagorean influence (much more than in the corresponding passage of XIV.4): 'The Pythagoreans say things exist by imitating the numbers, Plato says by participating <in them>, changing only the word' (*Metaph.* I.6, 987b10–13). This Pythagorean origin for Plato's doctrine has sometimes been taken seriously by historians. But from the context we can see that in I.6 (unlike XIV.4) what Aristotle has in view is not so much the teaching of the *Phaedo* and *Republic* – what *we* call the Theory of Forms – but rather the later theory that he associates with the 'unwritten doctrines.' For Aristotle goes on to specify that the One and the Dyad of Great and Small are treated as 'elements' (*stoicheia*) of the Forms by Plato (987b19–27). In the same context he mentions 'the mathematicals' as situated between Forms and sensibles (987b15), and he reports that the Forms as numbers were derived from the Great and Small 'by participation in the One' (987b21). Thus it is clear that Aristotle's report in I.6 reflects the atmosphere and teaching of the Academy in Plato's last years, or even in the time of Speusippus, when it became fashionable to see Platonism as a continuation of Pythagorean philosophy.

Considered as a claim about the historical origin of the Theory of Forms, Aristotle's statement about the Pythagorean origin of the theory is highly implausible – even more implausible than his claim that Plato became a Heraclitean under the influence of Cratylus. Aristotle's emphasis on the importance of flux for Plato is probably also based on his experience in the Academy in Plato's later years, when attention was focused on works like the *Theaetetus* and *Timaeus*, where the analysis of flux plays an essential role in the argument.

[1] Mourelatos, 1970. This is affinity with a difference, as Alex has pointed out. See n. 9 below.

(And this, says Aristotle – namely, that all sensibles are always in flux – is something Plato believed 'also later,' 987b1.)

I do not wish to engage in Aristotle-bashing. But as historians of philosophy we must be on our guard when dealing with Aristotle's comments on his predecessors. Despite their philosophical interest, these comments are not, as a rule, historically reliable. For example, Aristotle seems not only inattentive to the Parmenidean influence on Plato, but equally insensitive to what we see as the fundamental importance of Parmenides' argument for the cosmologies of Anaxagoras and Empedocles. (He does recognize Eleatic influence on the atomists, but strangely identifies it not with the attack on coming-to-be but with a denial of the void.)

If, to test Aristotle's claim concerning Pythagorean influence on Plato's metaphysics, we look to the dialogues for traces of this influence, the best evidence comes from the role of *peras* and *apeiria* in the *Philebus*. For this is an unmistakable echo of the two cosmic principles that we know from the fragments of Philolaus.[2] But of course the *Philebus* is one of Plato's later dialogues, and does not represent the 'classical' theory of Forms. Similarly, Plato's mathematical interpretation of nature in the *Timaeus* is unmistakably Pythagorean in inspiration. But again this belongs to Plato's latest period.

When we look for Pythagorean influence in the works generally assigned to Plato's 'middle period,' the evidence is very different. There are certainly traces of Pythagorean ideas in Plato's cosmological myths, in his views on immortality and reincarnation, and in his concern with mathematics.[3] But I can find no evidence whatsoever to support Aristotle's claim for Pythagorean influence on the doctrine of metaphysical Forms as presented in the *Phaedo* and *Republic*. Pythagoras himself is mentioned once, in *Republic* X (600b), as founder of an educational community. Otherwise the only explicit reference to Pythagoreans in the entire Platonic Corpus is the statement in *Republic* VII where they describe astronomy and acoustics as 'sister sciences' (530d). This looks like a quotation from Archytas fr. 1, where the same phrase applies to the quadrivium of arithmetic, geometry, astronomy, and music. Plato's Pythagorean friend Archytas was a great mathematician, and we may reasonably believe that he had a considerable influence on Plato's conception of mathematics. But of course not all the mathematics in Plato is derived from Archytas; there is no suggestion that either Theodorus or Theaetetus was a Pythagorean. And there is no evidence that Archytas had a metaphysical theory of the Platonic type.[4] It may have been a personal contact with the Pythagorean milieu around Archytas in his second and third Sicilian voyages that persuaded Plato to pay more serious attention to the Pythagorean duality of *peras-apeiria*. But as we have noticed, this concern with Limit and Unlimited is conspicuous only in Plato's later work. (It appears in the *Parmenides* (158d) as well as in the *Philebus*; and compare 'the unlimited sea of Unlikeness' in the *Statesman* myth, 273d6.) There is no trace of this cosmological principle in Plato's earlier reference to Philolaus in the *Phaedo* (61d), where only the destiny of the soul is under discussion.

It seems clear, then, that Aristotle, who was personally familiar with the Pythagorean preoccupations of Plato's later years, has misleadingly projected this influence back into the earlier period before his own arrival in Athens. Despite Aristotle's testimony, every modern historian knows that the metaphysical background for Plato's theory of Forms is provided not by the Pythagoreans but by Parmenides. Of all Presocratic philosophers it was Parmenides who exerted the deepest influence on Plato's thought.[5] And in the dialogues, Parmenides is the one and only interlocutor who is allowed to defeat Socrates in argument. It is as a follower of

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[2] *Philebus* 16c–e. Compare DK 44 B 1–2; Huffman, 1993, pp. 37–53.

[3] See in particular the evidence for the Pythagorean origin of much of the *Phaedo* myth, assembled by Kingsley, 1995, chs. 7–9.

[4] On Geoffrey Lloyd's reading (1990), the *Seventh Epistle* suggests that Archytas was not much good at metaphysics.

[5] Cf.Guthrie, 1975, p. 34: 'The greatest single influence on Plato after Socrates was Parmenides.'

Parmenides that the Stranger from Elea is given the role of continuing the work that the Platonic Parmenides had begun, in the critical examination of Plato's own theory in the *Sophist*, where Parmenides' doctrine is subjected to similar treatment. It is worthwhile reflecting here on Plato's designation of Parmenides as his peer, or even as his master, capable of administering a lesson in dialectic to Socrates, who is on this occasion seen as a novice in philosophy.

The choice of Parmenides as spokesman for Plato's own radical critique of the Theory of Forms, in the first section of the *Parmenides*, can be seen from many points of view. However, the following consideration seems to me of primary importance. Parmenides is the only philosopher whose criticism of Plato's doctrine would not call into question the fundamental metaphysical conception that underlies this doctrine. For that conception is directly derived from Parmenides' own theory of Being, as a mode of reality beyond coming-to-be and perishing, free from the phenomenal diversity and variability of the world of human experience. Hence when Parmenides warns Socrates that if he gives up positing the Forms, 'he will have nowhere to direct his thought, and he will utterly destroy the power of dialectic' (135b–c), we know that neither Parmenides in the dialogue, nor Plato as its author, is at all tempted to give up this conception. And so we are not surprised when, a few moments later, Parmenides compliments Socrates for focusing our philosophical attention not on visible things 'but on those things that one can best grasp in rational discourse (*logos*) and consider to be Forms (*eidê*)' (135e). Even in the act of formulating objections to Plato's theory, Parmenides can play the role of the true Platonic philosopher, because he and Plato share the same fundamental conception of metaphysical reality.[6] And that is why, in the same dialogue, when Parmenides' own thesis is put up for critical analysis, it is not his conception of Being that is subjected to scrutiny but only his monism: the thesis that what-is *is one*.[7]

Of course we know that, besides giving up monism, Plato has emended Parmenides' ontology in a number of crucial respects. Between immutable Being and unknowable Not-Being he has admitted the mixed realm of Becoming, which both is and is-not (*R*. V. 476ff). Plato has thus accepted the derivative, inferior reality of the phenomenal realm – the realm that Parmenides' goddess seems to regard solely as a region of error and falsehood. And Plato will end, in the *Sophist*, by denying the coherence of the Parmenidean thesis that what-is-not cannot be anything at all, and that it is therefore unknowable.

There is an important story to be told of Plato as a revisionist Eleatic, the heir and corrector of Parmenidean metaphysics. But that is not my topic here. I want to come to Parmenides by way of his impact on Plato. I will take for granted that we are all familiar with the distinctly Parmenidean features in Plato's account of the immutable Being of the Forms, as presented in the *Symposium*, *Phaedo*, and *Republic*. I would only call attention here to two less conspicuous passages that point to Plato's early interest in Parmenides. We find Parmenides' name mentioned, probably for the first time in the Platonic Corpus, in Phaedrus' speech in the *Symposium*, where Phaedrus quotes the verse that we know as B 13: 'first of all the gods she contrived Eros' (178b). And of course the Parmenidean elements in Diotima's revelation later in the same dialogue are well known.[8]

Can we find Parmenides lurking in any dialogue earlier than the *Symposium*? I suggest that we may recognize a discreet echo of Parmenidean dialectic in the mischievous speech in the *Protagoras* where Socrates misinterprets Simonides' poem. In this shockingly sophistical

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[6] So Parmenides can comfortably say 'as we say' or 'as we assume' in referring to the doctrine of Forms (133b6, 134c1).

[7] Plato's emphasis on Parmenides' monism is somewhat puzzling, since in the poem of the historical Parmenides unity (*hen*) is only one among many attributes of *to eon* (B 8.2). Perhaps monism became more prominent in Eleatic tradition after Zeno. Or perhaps Plato emphasizes monism as the aspect of the Eleatic teaching that he rejects.

[8] See, for example my discussion in Kahn, 1996, p. 343.

performance Socrates focuses on the contrast between being and becoming: Pittacus was wrong to say 'Hard it is to be good' (*χαλεπὸν ἐσθλὸν ἔμμεναι*). Instead he should have said 'It is hard enough for a man to *become* good (*γενέσθαι ἄνδρα ἀγαθόν*).' 'For a man to become good and remain in this condition is impossible and not human; a god alone can have this privilege' (*Prt.*344b-c). So in this somewhat forced interpretation, Socrates exploits the contrast between permanent, divine Being and mutable human Becoming. If we are right to detect here a playful anticipation of the metaphysical dualism that will be proclaimed by Diotima in the *Symposium*, it may be no accident that the *Protagoras* also presents, in a more dialectical context, the earliest allusion to self-predication (in the assumption that justice is just and piety pious, 330c–d). As many scholars have noticed, the *Protagoras* and the *Symposium* are artistically linked to one another by an overlap of participants: except for Aristophanes, every speaker in the *Symposium* also appears in the *Protagoras*. And if we bear in mind these passages from the *Protagoras* and *Symposium*, we will be less surprised by the sudden appearance of Parmenides himself in the dialogue named after him.

I come now to the interpretation of Parmenides and to the connections between my veridical *esti* and the predicative exegesis that Alex Mourelatos has given, in terms of the sentence frame

'__ is __.'

As Alexander Nehamas once pointed out to me, the fundamental division between interpretations of Greek ontology – whether in Parmenides, Plato or Aristotle – depends upon whether one takes existence or predication as the primary basis for understanding *einai*. And it is precisely on this question that Alex and I are in agreement, against those like Owen, Barnes and Gallop who take *esti* in Parmenides as existential. My veridical reading of *esti* and Alex's predicative function are both aspects of the propositional structure of language and thought.[9] What I call the 'veridical' value of the verb is an isolated focus on the truth claim implicit in any predication. More precisely, the veridical verb may refer either to the intentional content of such a predicative claim – the fact as asserted in judgment or discourse – or to its objective correlate, the actual fact or state of the world that makes the claim true. Conceptually, the former presupposes the latter, as the notion of truth claim presupposes the notion of truth. Hence, both for idiomatic usage and for Parmenides, the primary veridical notion is that of fact or state of affairs, what obtains 'out there,' independently of what we say or think, and what makes what we say or think true or false.[10]

In my book on the verb 'to be' in Ancient Greek I argued that *einai* was primarily a verb of predication, that the veridical value was directly based on predication, and that the existential uses

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[9] It was only in Alex's response at the Austin conference that I finally understood the essential disagreement between his interpretation and mine. For Alex it is important that the 'is' of Parmenides remain an open predicational form, '—is—' without quantification and without specification for subject and predicate. In my interpretation, the focus on truth and reality is essential, and hence the predicational form must be understood as logically 'closed,' in a generalized truth claim. Alex had in fact pointed out long ago that in his view Parmenides' *hôs estin* was to be construed not as the assertion of a thesis but as a route of inquiry proposed for consideration. See Kahn, 1969, pp. 740–1.

[10] For documentation on the veridical see Kahn, 1973, pp. 331–54. In earlier discussions I did not make sufficiently clear the logical and linguistic priority of the 'objective' *einai* for the fact as such (for example, *ἔστι ταῦτα ὥσπερ σὺ λέγεις* – 'these things are as you say'), over its 'intentional' use to characterize the true statement or truth claim (*λόγος ἐών*, 'a true account'). Some phrases are intermediate between the two: *λέγειν τὸ ἐόν, λέγειν τὰ ὄντα*, 'give a true account,' 'say what is so.' For an important passage which relies upon this subtle ambiguity, see *Tht.* 186c-e with my discussion in Kahn, 1981, pp. 119–26.

That veridical *einai* refers primarily to fact rather than to truth claim is clear from the occurrences in past and future tense (Kahn, 1973, pp. 345–51). (This point was suggested by a comment Sarah Broadie made at the Austin conference.)

were secondary and derivative. (This was the opposite of the traditional view in historical grammar, which held that the copula use of 'to be' was derived by semantic weakening from an originally existential verb.) My argument then was largely linguistic and philological. I pointed out that the copula uses of *einai* were overwhelmingly predominant in Homer and in every later stage of the language, and that the existential uses were nearly always syntactically more complex: they normally involve second-order constructions rather than elementary sentence types.[11] I want to reassert this claim that *einai* is fundamentally a verb of predication, and reinforce it now by a more strictly philosophical consideration. When Plotinus insists that the One, the highest principle in his system of reality, is not a being, not an *on*, he certainly does not mean to deny that the One exists. For Plotinus the One is the fundamental reality on which everything else depends. If it did not exist, nothing else *could* exist. In denying *ousia* to the One, then, what Plotinus means to deny is not existence but something quite different: namely, predicative structure. For Plotinus as for Plato, being entails predication, and predicative structure entails plurality. The One cannot *be* anything, for that would introduce a conceptual distinction between the subject itself and what it is said to *be*. (Plotinus' logical model for the One is of course taken from the First Hypothesis of Plato's *Parmenides*, where the One has no predicates, not even 'being one,' 141e.)

I want to make clear that in emphasizing the notions of truth and predication in interpreting *hôs estin* in Parmenides I never meant to deny that this thesis includes an existence claim. The notion of existence for Being is clearly presupposed by Parmenides' argument against Becoming: *to eon* cannot come into existence because it is already *there*. It would be just as perverse to deny the existential force of the thesis *hôs estin* as it would be to deny the predicative function of the verb in the restatement of this thesis in B 8, where it is presented as 'the only tale of the way that is left' and immediately followed by a series of signposts along the way. The signposts (ungenerated, imperishable, whole, one, continuous, and so on) are just so many predicates assigned to the subject of *esti*, and these predicates are naturally introduced by two conspicuous occurrences of the verb as copula (*ὡς ἀγένητον ἐὸν καὶ ἀνώλεθρόν ἐστιν* B 8.3).

It may be misleading, or at least anachronistic, for us to debate the relative merits of the predicative, veridical, and existential interpretations. For one thing, these are notions introduced from modern grammar and logic for the sake of analytical clarity, but they may not accurately map the functions of the Greek verb. And furthermore, even if we succeed in identifying distinct uses of *einai* in ordinary or poetic Greek, we must recognize that what Parmenides has created in his poem is an entirely new philosophical notion of Being, for the expression of which the diverse functions of *einai* are assembled and integrated into a complex unity.

If in previous publications I emphasized the veridical notion, that was, first of all, because it had been too often overlooked in the interpretation of Parmenides. But there are also good historical and philosophical reasons for preferring 'it is so' or 'it is the case' to 'it exists' as a *prima facie*, 'first try' reading of the syntactically isolated, unadorned *esti* of fr. 2. Let me briefly remind you of these reasons.

1 Linguistically speaking, the syntactically absolute (or 'complete') use of *esti* and its participle in the sense of truth (as in *λέγειν τὸ ἐόν* in Herodotus, *λέγειν τὰ ὄντα* in Thucydides, *ἔστι ταῦτα* as a response in Plato) is idiomatic and familiar in early Greek (and apparently continues a prehistoric Indo-European idiom), whereas an absolute or 'complete' use of *esti* for 'exists' is practically unattested before the late fifth century (except for the special use with persons as subjects, where *esti* means 'is alive').[12]

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[11] The exception is the 'vital' use for persons: *ἔτ' εἰσί*, 'they are still alive' (Kahn, 1973, pp 241–2.).

[12] See the preceding note. The earliest evidence for the use of absolute *esti* with the meaning 'exists' is probably Protagoras B 4: 'Concerning the gods, I cannot know either that they are or that they are not (*οὔθ' ὡς εἰσὶν οὔθ' ὡς οὐκ εἰσίν*).'

2 Philosophically, the justification in B 2 for accepting *esti* and rejecting *ouk esti*, because 'you cannot know what-is-not (*to mê eon*),' makes much better sense if we read it as 'you cannot know (*gnoiês*) what is not the case' than if we read it as 'you cannot know what does not exist.' Knowledge requires as its object truth, or what obtains. As Hintikka once pointed out, the epistemic principle '"M knows that *p*" entails *p*' might be called Parmenides' law. It is clearly in this sense that Plato understands the inference, as we can see from his echo of this argument in *Republic* V: the object known must be an *on*, 'for how could something that-is-not (*mê on ti*) be known (*gnôstheiê*)?' (476e7–477a1).

3 Finally, there is the evidence from the context of the poem: the notion of truth is directly relevant in fr. 2, where the thesis *that it is* (*hopôs esti*) is called 'the path of Persuasion (*Peithous esti keleuthos*), for she accompanies Truth (*Alêtheiêi gar opêdei*).' The reference here to truth and persuasion or belief (*peithô*) echoes the goddess' promise in B 1 that 'you will learn all things,' (*puthesthai*, *mathêseai*) including 'the unshakeable heart of persuasive Truth.'[13] As this larger context makes clear, the route of *esti* is the only correct road for thought (*noêsai*) to travel on, precisely because it is the route of inquiry (*zêtêsis*) that leads to knowledge of the truth.

I want to call attention to this strong epistemic context provided by the proem with its emphasis on Truth, and also on persuasion or conviction (*pistis* in B 1.30) as the appropriate response to a true account. For this context tells against the weaker 'intentional' reading of *eisi noêsai* in B 2.2, as the only two ways 'that can be thought of.' This Burnet-Owen reading of the argument (which is reinforced by the tendentious translation of *τὸ λέγειν τε νοεῖν τ' ἐόν* in B 6.1 as 'what can be spoken and thought') introduces a modal-intentional concern with the thinkable and sayable which may be philosophically attractive to modern ears, but which obscures Parmenides' fundamental preoccupation with knowledge and truth.[14] I submit that Parmenides' urgent pursuit of knowledge in the proem, together with the goddess' promise of a fully reliable revelation, provides decisive evidence in favor of the epistemic reading of B 2.7 ('for you cannot know what-is-not') and against the merely intentional reading of this verse as 'you cannot conceive what does not exist.'[15]

I continue to believe, therefore, that the veridical notion is the right place for a reading of Parmenides' argument to begin.[16] But of course it cannot end there. We cannot offer 'it is so' as an adequate interpretation of Parmenides' *esti*. As I have suggested, Parmenides' new conception of Being must be seen as a complex assemblage and unification of a half dozen different functions of the verb *einai* in Greek. These include:

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[13] Reading *ἀληθείης εὐπειθέος ἦτορ*, not *εὐκυκλέος* in B 1.29.

[14] For my argument against this modal reading of B 6.1 *χρὴ τὸ λέγειν τε νοεῖν τ' ἐὸν ἔμμεναι* as 'it is necessary that what can be spoken and thought of exist,' see Kahn, 1988, pp. 260 f. This is the most problematic verse in the poem, and the modal reading is the *least* plausible of the 5 or 6 possible construals. The only natural reading of B 6.1 is grammatically straightforward and philosophically sound: 'It is necessary that *legein* and *noein* be *eon*'(with *ἐόν* as predicate and *ἔμμεναι* as copula). Since there is nothing at all besides *to eon*, if *legein* and *noein* are anything at all, they can only be *eon*.

In any case, as Tugendhat and others have pointed out, it is bad method to base any interpretation on a heavily disputed passage like B 6.1.

[15] This was the reading proposed by Victor Caston at the Austin conference. Something of this sort is required by the modal-intentional interpretation of the argument made popular by Owen: 'the proof of its existence is that, if it did not exist, it could not be talked or thought about' (Owen, 1960, p. 60, citing B2).

[16] An essentially equivalent view is presented in the recent interpretation of Parmenides by Edward Hussey, 1997: '*alêtheiê*, in the sense of "reality," is the intended subject' of *esti*; 'If *alêtheiê* is thought of as a "summed state of affairs," then to say that there actually exists such a thing is just the same as to say that it is the case' (p. 134).

1 the veridical use of the verb to express the objective fact or reality corresponding to a true statement;
2 the claim of existence for the subject;
3 the copula use, for asserting predicates of the subject;
4 the stative-durative value of 'is' in contrast to the kinetic-mutative value of 'becomes';
5 the locative use with complements of place, which is often connected with an existential nuance (as in our expression, 'there is …'; so in Greek *to be* is *to be somewhere*); and
6 'is' as asserting identity, which can be regarded as a special case of predication (that is, identity construed as convertible predication, with subject and predicate reversed): thus Parmenides' Being is 'the same, remaining in itself and by itself' (B 8.29).

The inherent stative-durative value of the verb reinforces Parmenides' claim that Being is unchanging, that it neither was nor will be but 'is all together now' (B 8.5). The locative function of *esti* as a verb of place or station underlies Parmenides' conception of Being as spatially extended and continuous. The notions of location and identity converge in the conception of Being as symmetrical: 'like the bulk of a well-rounded sphere, equally balanced from the center in every direction' (B 8.43–4).

From the linguistic point of view, then, Parmenides can be seen as forging his new, metaphysical concept of Being by exploiting and fusing together the whole range of uses and meanings for the verb.[17] Hence I would object to an existential reading of *esti* only to the extent that it is presented as self-sufficient, and as excluding the copula construction. In claiming that *einai* is essentially a predicative verb I mean to suggest that *every* philosophical use of *esti* – and not only in Parmenides – is potentially predicative. That is why the notion of existence can be so misleading as a basis for interpretation. In English (and in most modern languages) existence and predication are thought of as mutually exclusive, since an expression like 'it exists' does not admit the copula construction. If we think of an existential use in this sense, as *excluding* a predicative complement, such uses of *einai* are probably not to be found in Greek.

My view of *einai* as always potentially predicative gets strong support from an important study by Lesley Brown (1986). In a critical review of the notion of an 'incomplete use' of the verb introduced by G. E. L. Owen, Brown points out that verbs do not divide into one-place and two-place predicates, as relations do. As she puts it (following Anthony Kenny), verbs can exhibit 'variable polyadicity' (p. 54). Brown argues that it is therefore a mistake to think of a 'complete use' of *einai* as one that excludes a predicative complement. Her model for a complete use is

Jane teaches.

which allows (but does not require) a syntactic complement such as 'Jane teaches French' or 'Jane teaches mathematics.' Similarly, Brown suggests, in Plato's Greek '*X* is' always allows a complement '*X* is *Y*,' without change of meaning for the verb. And hence (I add) it is misleading to translate a complete or absolute use of *esti* by English 'exists,' precisely because the latter excludes the predicative construction which the former allows. (There is an additional discrepancy between *esti* and 'exists,' to be specified below.) By contrast, our locution 'there is,' which implies or suggests existence, easily admits a complement: 'There is an *X* (which is) *Y*.' So in Greek, every absolute or quasi-existential use of *einai* can be thought of as awaiting further specification, that is, as pregnant with the copula construction.

Corresponding to this syntactic difference between 'exists' and a 'complete' use of *esti* is a semantic discrepancy that is more difficult to specify. The flavor of this distinction is suggested

[17] For a fuller statement of this view see Kahn, 1988, pp. 249–51.

by Vlastos' observation (1965/1973, p. 65) that existence does not admit of degrees, it is all or nothing; whereas 'being' in Greek allows of more and less, as in Plato's notion of *ontôs on* and in his distinction between *to mê on* and *to mêdamôs on*. The gap between 'exists' and the strong use of *esti* also shows up in Plato's lack of interest in what Brown calls 'the Pegasus point': the possibility of true predications for non-existent subjects. She suggests that Plato's failure to make this point is due to the fact that 'he cannot distinguish non-existence from not being anything at all.'[18]

I would put it more charitably. In Plato's Greek, '*X* is *Y*' entails '*X* is,' whereas in English 'Pegasus is a mythic creature' does not entail 'Pegasus exists.' Hence Plato's 'complete' use of *esti* (with no complement supplied or presupposed) is not correctly rendered by 'exists.'[19] For Plato, any subject under discussion is a being: any *ti* is an *on*.[20] We might say that, for better or worse, Plato simply lacks our notion of existence – the notion illustrated in a denial of existence for Pegasus or Santa Claus. Aristotle does show more interest in non-existent subjects like centaurs and goat-stags, but it is not clear that anything in his distinction between *einai haplôs* and *einai kata ti* corresponds to our notion of existence.[21]

The compatibility and union between existential force and copula construction, which I claim is typical of the Greek verb, can be illustrated by some familiar philosophical examples. The background is provided by Homer's reference to the gods as *theoi aien eontes*, 'the gods who are (or live) forever.' (I would count this as a quasi-existential use of the verb.) It is this Homeric formula that Heraclitus is echoing when he speaks in B 30 of the *kosmos* which 'always was and is and will be – everliving fire:' *ên aei kai estin kai estai pur aezôon*. Here the three occurrences of the verb (*ên kai estin kai estai*) must be construed twice, first as complete or quasi-existential with *aei* (the *kosmos* is forever, like the gods), and then as copula with *pur aeizôon*. The grammar of the verb is the same in the *Symposium*, when Plato's Diotima introduces the Beautiful itself. The description begins with the Homeric formula for a being 'which is forever (*aei on*), neither coming-to-be nor perishing … not beautiful in one respect, ugly in another … not being somewhere (*pou on*) … but itself by itself being forever uniform (*monoeides aei on*)' (211a–b).[22] Here the existential, locative and ordinary copula uses of the verb practically coincide.

Plato is of course following not Heraclitus but Parmenides, in the grammar of *einai* as in the metaphysics of Being. Thus in Parmenides B8, which introduces the signposts marking the way *that it is*, the verb occurs four times in the first three lines.

μόνος δ' ἔτι μῦθος ὁδοῖο
λείπεται ὡς ἔστιν· ταύτηι δ' ἐπὶ σήματ' ἔασι
πολλὰ μάλ', ὡς ἀγένητον ἐὸν καὶ ἀνώλεθρόν ἐστιν.

In these verses a modern commentator may classify the first occurrence as existential or veridical (*ὡς ἔστιν*), the second as locative-existential (*ταύτηι δ' ἐπὶ σήματ' ἔασι*), the third and fourth as copulative (*ἀγένητον ἐὸν καὶ ἀνώλεθρόν ἐστιν*). But an ancient reader would probably recognize only more or less emphatic uses of a single verb with a single (unanalyzed) meaning.

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[18] 1986, p. 61 n. 16.

[19] See also Malcolm, 1967.

[20] *Sophist* 237c-d; *Parmenides* 132b7–c1. Long and Sedley, 1987, vol. 1, pp. 163–4, suggest that the Stoic distinction between *ti* (something) and *on* (being) makes the latter equivalent to 'exists.' I believe there will still be a difference, but the Stoic distinction is clearly incompatible with Plato's usage.

[21] See Lesley Brown's discussion of the Aristotle passages, 1994, pp. 233–6.

[22] *ἀεὶ ὂν καὶ οὔτε γιγνόμενον οὔτε ἀπολλύμενον … οὐ τῆι μὲν καλόν, τῆι δ' αἰσχρόν … οὐδέ που ὂν ἐν ἑτέρωι τινι, οἷον ἐν ζώωι ἢ ἐν οὐρανῶι ἢ ἔν τωι ἄλλωι, ἀλλ' αὐτὸ καθ' αὑτὸ μεθ' αὑτοῦ μονοειδὲς ἀεὶ ὄν* (*Smp.* 211a1–b2).

The same failure to respect the distinctions that modern grammar and logic would impose on uses of *einai* is also characteristic of the passage in which Plato introduces his most systematic discussion of the problems of Being and Not-Being. In *Sophist* 237c–238c *to mê on* and *ta onta* are at first presented in what seem to be complete or 'existential' uses. It is in this syntactically complete form that the Parmenidean principle is enunciated, that *to mê on*, 'what-is-not,' cannot be applied to or combined with *to on*, 'what-is' (237c). Apparent violations of this rule are then introduced where the construction of the verb is first unmistakably copulative ('it *is* unthinkable and unsayable' at 238c10, 238e6) and, second, veridical (at 241a1 false statement is described as 'saying *mê einai* of *ta onta* and saying *einai* of *ta mê onta*'). In order to avoid incoherence and contradiction, the Eleatic Stranger insists that they must refute Parmenides and force the conclusion 'that Not-Being *is* in some respect (*hôs esti kata ti*) and that Being in turn in some way *is not* (*hôs ouk esti pêi*)' (241d6). No doubt the long discussion that follows will illustrate or imply some important distinctions, and these may or may not correspond to distinctions we want to draw between different uses of *einai*. But the problem – as Plato defines it – is not to distinguish uses of *einai*, but to make clear how one can correctly combine the negative and positive constructions of the verb so as to give a coherent account of true and false statement. It is not at all obvious that Plato found it either necessary or desirable to make our distinctions between existence and predication, between predication and identity, or between any of these and the veridical use of *einai* for being-so or being-the-case. (Aristotle does, of course, make some of the relevant distinctions. His scheme of categories analyzes various predicative functions of *einai*, and in *Metaph.* V.7 he distinguishes this from the veridical use. But Aristotle nowhere recognizes an existential use as such. Does he ever distinguish an *is* of identity?)

Given this lack of discrimination in Greek discussions of *einai*, must we agree with John Stuart Mill that ancient metaphysics was infected with profound confusion, due to its failure to distinguish the various uses of 'to be'? (Mill's *Logic*, I.iv.i.) In the case of Parmenides, I think, this is a question we cannot really avoid. In effect, both Plato and Aristotle criticize Parmenides for some confusion of this sort – for failing to recognize that, as Aristotle put it, 'being is said in many ways.' How far is Parmenides' argument vitiated by such failure?

I want to defend Parmenides' positive account of Being as a coherent, unified vision.[23] And I think his refutation of coming-to-be is formally impeccable, once one accepts the

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[23] At the Austin conference Victor Caston objected that the veridical (even when construed objectively, as fact rather than truth claim) was incompatible with the other uses of *einai*, since its subject must be something with propositional structure, whereas the other uses normally take individual entities or things as subject. This parallels David Gallop's objection (1979, p. 66): a fact or state of affairs 'seems to be of the wrong logical type to serve as the bearer of such attributes as "ungenerable," "imperishable," "whole," and "immovable" … What the goddess seems to be talking about is not a fact or state of affairs but a thing with certain attributes.'

I think the best answer is to refer to Wolfgang Mann's recent book, 2000, which shows how great an innovation it was for Aristotle to introduce the 'common sense' ontology of things with attributes. And even Aristotle, who does in principle distinguish predicative from veridical uses, does not always respect that distinction in technical contexts (notably in the discussion of *ei estin* questions in *APo.* II). In general, Greek philosophers are not sensitive to the distinction between propositional and non-propositional subjects of *einai*.

It can also be argued that, since in Greek '*X* is *Y*' always implies '*X* is,' if the veridical is construed as '*XY* is' (where *XY* is propositional in form), then the veridical 'is' always entails the other two forms of 'is.'

(When I made this point in Kahn, 1988, I misleadingly claimed that 'the veridical *esti* of B 2 directly entails both existential assertion and predicative construction' (p. 252). This is correct if 'existential assertion' is understood in terms of an absolute use of Greek *esti*. But it does not hold, of course, for English 'exists'. This is the 'Pegasus point' about true predications for non-existent subjects. I am grateful to Richard Ketchum for pointing out the need for clarification.)

premise (which Plato will deny) that *esti* and *ouk esti* are mutually exclusive, like *p* and not-*p*. And it is precisely this assimilation of the '*is* or *is not*' dichotomy to the law of non-contradiction – to '*p* or not-*p*' – that accounts for the extraordinary effectiveness of Parmenides' argument, its acceptance by the fifth-century cosmologists, and the difficulty that Plato encountered in answering it.

However, if the rich, positive account of Being that results from Parmenides' amalgamation of the entire range of uses and meanings of *einai* turns out to be a long-term success (as the fruitful ancestor of ancient atomism, Platonic Forms, and the metaphysics of eternal Being in western theology), the corresponding negation in Not-Being is a conceptual nightmare. Depending on which function of *einai* is being denied, *to mê on* can represent either negative predication, falsehood, non-identity, non-existence, or non-entity, that is to say, nothing at all. The fallacy in Parmenides' argument lies not in the cumulation of positive attributes for Being but in the confused union of these various modes of negation in the single conception of 'what-is-not.' That is why Plato saw fit to criticize his great predecessor in respect to the notion of Not-Being, while making positive use of the Parmenidean notion of Being.

Concluding Note on the Direction of Parmenides' Chariot Ride

I want to take this opportunity to argue against an interpretation of the proem that has been proposed by several distinguished scholars and friends, including David Furley and Walter Burkert. This is the view that Parmenides' journey is a kind of *katabasis*, like a descent into the underworld for a mystic revelation.[24] The view has been rejected by the most recent editor of Parmenides, who points out that it rests upon a misreading of 'the halls of night' in Parmenides in terms of the topography of Hesiod's *Theogony*.[25] But Coxon does not argue the case, and I fear that the scholarly prestige of the proponents of the *katabasis* interpretation, and the rich documentation with which Burkert has supported it, may lead this view to be regarded more favorably than the evidence deserves. I will endeavor to show that this interpretation misconstrues both the imagery and the symbolism of the proem.

In the first verses of the poem we learn only that the narrator is being carried 'as far as his *thumos* can reach' along the way of the *daimôn*. Who this *daimôn* is and where she dwells, we are not told. (Burkert points out that we do not even know her gender until later, since it is the road, not the divinity, which 'carries' the traveler in v. 3. But we may refer proleptically to the *daimôn* of verse 3 as the *thea* of verse 22.) Our only hint so far is that the road carries a 'knowing mortal' (*εἰδότα φῶτα*), that is, someone who is qualified for a revelation. The way is *poluphêmos* and the horses are *poluphrastoi*, but that does not tell us where the revelation will take place. When the *kourai* are added as guides in verse 5, we still do not know the direction of their journey. The description of the axle blazing (*aithomenos*, verse 7) may contain a hint. But it is only with the designation of the maidens as Heliades 'who have left the halls of night' in verse 9 that we are given a definite direction:

ὅτε σπερχοίατο πέμπειν
ἡλιάδες κοῦραι προλιποῦσαι δώματα νυκτός
ἐς φάος, ὠσάμεναι κράτων ἄπο χερσὶ καλύπτρα

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[24] Furley, 1973, is endorsing Burkert's account, although he cites Morrison and Mansfeld as well. Burkert, 1969, identifies the Halls of Night as Parmenides' destination, although he locates these not in the underworld but 'at the edge of the world, at the limits of heaven and earth.' On this view, Parmenides' journey is neither upwards nor downwards but simply far into the beyond.

[25] Coxon, 1986, p. 161.

As Coxon remarks, 'The Heliades "push back their mantillas from their heads" because they have reached the light which is their natural habitation' (p. 161). They drop their veils like Muslim women returning home. So now we know that the journey that leads a knowing mortal to the goddess is a journey from darkness to light, from a mortal realm near the halls of night to a place where Sun-maidens are at home. And the direction is fixed unambiguously by the emphatic position of ἐς φάος at the beginning of verse 10.

Why should anyone read these verses as indicating a different direction? The proponents of the *katabasis* view argue that 'to the light' refers only to the recent emergence of the Heliades from the halls of night, and tells us nothing of the direction that the narrator himself is travelling. But of course the phrase *can* refer to both (that is, ἐς φάος can be construed both with προλιποῦσαι and with σπερχοίατο πέμπειν). And since we have had no clear indication of the traveler's direction so far, it is natural to take this as answering our unspoken question: where is he going? We must have some special reason *not* to take 'to the light' as an answer to this inevitable question.

The reason (for the view I am opposing) lies in the description of the gates in the next three verses, the gates whose keys are kept by Dikê and through which the narrator must pass to reach the goddess and receive the revelation. These gates are said to be *aitheriai* (verse 13), both 'fiery' and 'celestial.' (And now we can recognize the hint of anticipation in the blazing axle of verse 7.) That is as it should be, if we are moving into the mythical region of the Sun, the homeland of the Heliades. However, these mighty gates are first introduced by verse 11:

> ἔνθα πύλαι νυκτός τε καὶ ἤματός εἰσι κελεύθων
> 'There stand the gates of the paths of night and day.'

The *katabasis* reading depends upon taking 'there' (ἔνθα) as a reference back to the halls of night in verse 9, and assuming an allusion to the account of Tartarus in *Theogony* 729–75, where an initial ἔνθα serves repeatedly to introduce a further description. But if these gates are located in or near Hesiod's halls of night in the underworld, why have the Heliades so conspicuously left this region, and made themselves at home in the light?

This apparent contradiction is resolved (on the view I reject) by suggesting that the Heliades have left the darkness *only temporarily*, in order to greet Parmenides, and that they must then *turn around*, and head back to the region they have just left. But there is of course no trace in the text of this reversal of direction. The return of the Heliades back in the direction of the halls of night is an artefact of this exegesis, an artefact generated by the assumption that 'there' in verse 11 must locate the gates in or near the δώματα νυκτός which the Heliades have left behind them.

The alternative is to take 'there' in verse 11 with less topographical precision, as a reference to some mysterious mythical location to be further specified only by the context of the poem. And the immediate context is given by the phrase 'the paths of night and day,' which is (as Coxon notes) a quotation from *Odyssey* 10.86, where these paths are situated near the land of the Laistrygonians, not near the halls of night. So the reference is not fixed by any passage in the *Theogony*. Despite all these epic allusions, the topography of the proem is neither Homeric nor Hesiodic. It is a creation of Parmenides himself, and his poetic technique is to make systematic use of epic material for his own purposes. Burkert must be right to insist that one of these purposes is to allude to mystic revelations of the sort that were attributed to Epimenides and others. But it does not follow that the topography of Parmenides' chariot journey is determined by any traditional revelation pattern. Parmenides' method is to absorb the tradition (of poetry as of cosmology) and to transform it into his own vision. His gates separate the mortal world from the divine. On this side of the gates are the paths of night and day, the region of opposition and alteration. But the gates themselves are *aitheriai*, flaming and aloft. And the

symbolic meaning for the destination beyond the gates is defined by the imagery of Sun-maidens going home, in a movement towards the light.

I have argued this point at length, because more than textual accuracy is at stake. The suggestion that the knowing mortal must travel to the halls of night, or that the revelation of the goddess takes place in the never-never land of traditional eschatology, can only obscure the subtle unity of Parmenides' work. Such a conception of the journey is incompatible with the distinctive features of the proem: the symbolism of Parmenides' choice of the Sun-maidens as guides, the symbolism of the removal of their veils, and the emphatic verse position of the one unambiguous direction: ἐς φάος. More generally, this reading of the proem ignores the symbolism of fire-light in the repeated imagery of *aithomenos/aitheriai*, and the connection of all this with the fire-night dualism of Parmenides' cosmology. Above all, this interpretation ignores the positive function of light in Parmenides' theory of human cognition.[26] Thus the *katabasis* interpretation not only misconstrues the dramatic action of Parmenides' proem; it denies the conceptual and symbolical unity of the entire poem.

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[26] See Gregory Vlastos' classic study, 'Parmenides' Theory of Knowledge' (1946/1995). Compare Hermann Fränkel's comments in his 'Parmenidesstudien': the upwards voyage from night to light is symbolized four times in three verses (9–11); first by naming the guides Sun-maidens, second in leaving the halls of night, then by the Heliades throwing back their veils, and finally by the gate that separates the ways of day and night. 'Jedes dieser Dinge meint den Durchbruch des Geistes zur Klarheit,' 1955, p. 161. I differ from Fränkel only on the location of the ways of day and night, which I situate symbolically in the realm of *doxa*, below the gates rather than separated by them.

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Chapter 7

Parmenides, Double-Negation, and Dialectic

Scott Austin

It is my pleasure here – and I hope that it will be Alex's as well – to make public, as a present, the very first idea that I had about Parmenides when I began to study with Alex, to expand it and to see what its ramifications might be.

I claim in this paper that Parmenides chose to negate as part of the most basic skeleton of his proof-structure: each predicate true of Being is not only proved, but also has its contradictory denied modally. And all sorts of negations (privations, denials, double-negations) have a necessary place in these proofs. Thus Parmenides' speech – a monistic speech – was already meaningfully negative, and the pluralism in philosophy that begins later on and culminates in the argument against Parmenides in the *Sophist* is unnecessary, at least on those grounds. In particular, I wish to show that Parmenides, like Plato's *Parmenides*, domesticates negation in a way that Plato and the subsequent tradition do not positively give him credit for. For Plato articulated the line of criticism which has been dominant ever since: Parmenides' discourse cannot be uttered without undercutting the goddess's own conditions for the intelligibility of meaningful speech; moreover, even if we could hear her speech and retain it for a moment, it would be useless to us. The criticism continues: a pure monism is divorced from the needs of life, dialogue, or a path to goodness and beauty.

Parmenides' intention to speak negatively is visible from the beginning of the goddess' remarks about the canons for truth. Fragment 2 tells us that we are to say not only how or that being is, but also how it is not possible for it to be otherwise. This prescription in fragment 2 gets expanded into the list of signposts in fr. 8: 'how it is' in fr. 8.2, directly repeating the 'how it is' in fr. 2.3, is at once amplified into 'how it is ungenerable and unperishing, a whole of a single kind, unmoving, and perfect' – this amplification, along with the reading of Parmenides as an ironist, will remain one of Mourelatos' own most decisive contributions – and each signpost is then proved in fragment 8 in sequence by proving the impossibility of its contradictory in a manner I shall describe below. There is no such thing as a bare 'is' in Parmenides; the copula is always either explicitly predicational or implicitly so (Austin, 1986, pp. 11–43). It is always a mistake to isolate the 'is' from the surrounding discourse and then attempt to guess at its significance.

To illustrate: a reading of Parmenides will disclose that positive and negative language are both parts of the goddess's speech, the speech intended to make the young voyager himself immortal. I would like to repeat (Austin, 1986, pp. 44–64) the following observations about her varied and comprehensive discourse: it is positive and alpha-privative; it contains single terms, dyadic oppositions, and triadic arrangements in which two contraries are subordinated under a single, more general term. Here are examples of each of these kinds of language in fragment 8: Being is 'whole' (line 4), 'ungenerable' (3), 'is not divisible' (22), 'is not incomplete' (32). Terms can be single, as are some of the ones just quoted, or can be members of opposed pairs: 'birth … perishing' (13–14), or members of triplets ('immovable … unbeginning unending,' 26–7); 'divisible … more … less,' (22–4), 'the same and in the same place … according to itself,' (29) in which two opposed terms fall under a single term which includes them both. (For example, 'unbeginning' and 'unending' are two ways of being 'immovable.') Both pairs and

triplets can, as in these examples, be either positive or alpha-privative. Dyadically contrary pairs are surely significant in a poem where dyadic contrariety is ruled out in the 'Doxa' section, and triples containing contraries, especially when they occur in both positive and privative versions, are well worth watching in a poem where negatives and positives are important in the nature of the case. It was not necessary for Parmenides' goddess to triple the 'auto' stem in 'the same and in the same place … according to itself' (29), or to triple the alpha-privative in 'immovable … unbeginning, unending' (26–7). It is worth exploring the possibility that these are not just flourishes.

It is also the case that Parmenides' method involves negative types of argument as well as negative terminology. In general, all demonstrations of the 'signposts' along the way, the transcendental predicates of Being, involve denying things: the denial of contrariety in the section devoted to time (earlier-later, 5–21) establishes 'ungenerable' and 'unperishing' (3); the denial of contrariety (bigger-smaller) in the section on the (metaphorical) occupation of place by mass (22–9) establishes 'whole, of a single kind' (4); and the denial of contrariety (bigger-smaller, more-less) in the third section, the sphere-metaphor (42–9) helps to establish 'perfect'. In effect, then, this proof is itself a doubly-negative procedure, a fact noticed by Fränkel (1962, p. 402 n. 12) and present in Furth's formalization of the argument (1974, pp. 241–70). Here again the goddess arrives at the proofs of (positive or privative or doubly-negative) terms only by *negating* the terms' contradictories.

The following tables attempt to summarize these characterizations of the time, space, and sphere-sections, three arguments in which each proof of a signpost proceeds through denying its contradictory. As just mentioned, terms can be grouped singly (for example, 'whole,' 38; 'inviolable,' 49), doubly (for example, 'birth-destruction,' 13–14; 'ungenerable unperishing,' 3) or triply (for example, 'the same, in the same, according to itself,' 29; 'unmoving … unbeginning, unending,' 26–7). I intentionally offer both positive and privative examples of these single, double, and triple kinds of grouping, and so the terms themselves can be positive ('perfect,' 42) or privative ('imperfect,' 32). Finally, any sort of term, or grouping of terms, can be asserted or denied by the goddess. Thus there are three ways of grouping, two sorts of terms, two kinds of statement.

The first table considers the scope in each section of the affirmations and denials of single, double, and triple terms; the second tries to show how each number of terms (doubles in time, triples in space, singles in the sphere) is opposed within each section by an equal number of opposing terms.

Table 1.1 Terms

Affirmation		
Single	perfect (42), unmoving (4), whole (4)	positive and privative
Double	ungenerable-unperishing (3)	privative
Triple	the same-in the same-according to itself (29)	positive
Negation		
Single	imperfect (32)	privative
Double	birth and perishing (13–14, 27)	positive
Triple	divisible-more-less (22–4)	positive

One might also classify these examples by the sections of the poem in which they occur:

Table 1.2 Sections

Time (6–15) (affirmation and denial of doubles) ungenerable and unperishing (3) birth and perishing (13–14, 27)	*Space* (affirmation and denial of triples) the same-in the same-according to itself (29) divisible-bigger-smaller (22–5) unmoving-unbeginning-unending (26–7)
Sphere (affirmation and denial of singles) perfect (42) imperfect (32)	

A further table would show the pairings within each section:

Table 1.3 Pairings

Time	ungenerable unperishing (3) *vs.* birth perishing (13–14)
Space	immovable-unbeginning-unending (26–7) *vs.* the same-in the same-according to itself (29)
Sphere	not imperfect (32) *vs.* perfect (42)

(Note that the opposition characteristic of the time-section between privative and positive becomes tautology as we move through space to the sphere.)

To resume some of the characteristics of the three sections: each has its own way of treating affirmation and denial and, as it were, its own 'mood.' The denials of the two positive contraries (birth and destruction) in the time-section operate through exclusion: Justice 'does not allow' (14–15) these things to happen. In the space-section, we have an inclusive mood, one where positive and privative are asserted: being is immovably the same, and so Necessity in lines 30–31 binds it from without, constraining it within boundaries so that it does not wander. In the sphere-section, finally, we have both double-negation (the negation of 'imperfect' in line 32) and simple assertion, with 'perfect' in line 42. Thus the negative mood of time and the positive mood of space coalesce and are recapitulated in the sphere, which includes both an affirmation and a double-negation. And so the sphere reaches to the bound ('from the middle,' 44) and is also within the bound 'from every side' (49). All three sections include positives and privatives, but they are asserted and denied in characteristically different ways. I shall shortly attempt to correlate these 'moods' more closely with the subject-matters of the sections.

The result is a sequence of posit, negation, and double-negation – all within a poem apparently devoted from its beginning to positive expression. This sequence is not only a survey of positives and negatives – as if the point were *only* that all are represented – it is also a story of *development in statement* from the rejection of dyadic contrariety, to the negation of and inclusion of that contrariety in triples, to the simplest positive and double-negative terms. The affirmed and denied positives and privatives shown in the preceding tables are thus not only alternatives presented for variation's sake but also tell a story as we hear the goddess speaking from the first section through the third, a story of increasingly domesticated negations. Time (a story of denial) and space (a story of affirmation) treat terms in opposite ways; but the sphere

both negates and includes both. It negates a privative ('imperfect') and affirms a positive ('perfect') just as it rejects time and affirms (metaphorically) spatial homogeneity in a recapitulative way.

Although there is not enough space here to pursue the comparisons in detail, it is worth noting that the methodology just described resembles that in the second half of Plato's *Parmenides*. The historically Parmenidean sequence went from time (where birth and negation, two contraries, were denied), through space (where positive and privative triples were affirmed), to the sphere (with both the positive 'perfect' and its double-negation in 'not imperfect'). Similarly, the dialogue contains 'Hypotheses' 1, 4, 6, and 8 (where contrary or contradictory terms are denied) and 'Hypotheses' 2, 3, 5, and 7 (where roughly the same terms are affirmed), and then a conclusion (at the end of the second half) which both affirms and denies all the terms, that is, affirms them (for example, 'The One is like and unlike') and negates them ('The One is neither like nor unlike'). I scare-quote 'Hypothesis' here since, as is evident from the dialogue's description of its method and has been pointed out at least since Proclus, the two real Hypotheses are 'If a One is' (divided by commentators into four or five 'Hypotheses') and 'If a One is not' (traditionally divided into four 'Hypotheses'). I also leave out of consideration Proclus' and Cornford's third 'Hypothesis' (Cornford's 'Hypothesis' 2A) as not, for present purposes, affecting the general sketch of method. In both the methodology of the goddess and the methodology of the dialogue, affirmations and negations are recapitulated in a conclusion which is doubly-negative (in the dialogue, the affirmation of positive terms (like/unlike) is also the double-negation of those same terms in the negation of 'neither like nor unlike'). The difference, of course, is that the dialogue can admit real or apparent contradictions whereas the goddess cannot. Thus the Eleatic influence on Platonic dialectic may have been closer than has been realized. Both treatments move from position, through negation, to double-negation. Comparisons with later dialectic (for example, the Trinity, where the Father is positive, the Son is negative, and the Spirit is doubly-negative, or the recapitulatory negation of both positive and negative, and Hegel, for whom the in-itself is positive, the for-itself negative, and the in-and-for-itself the negation of both) would seem to open up in a continuous line beginning from Elea. But I attempt to discuss these issues in an as-yet unpublished paper entitled 'Parmenides and the History of Dialectic.'

A note on the relationships between these issues and the subject-matters of the sections of the goddess' speech in which they occur. Parmenides' time-section, like 'Hypothesis' 1 of the *Parmenides*, considers a being absolutely apart from an *excluded* plurality (the instants of time, the 'Others' than the One). The space-section, like 'Hypotheses' 2 and 3, considers an *included* one-in-relation-to-a-many (Being is distributed across metaphorical space, the One in relation to the Others in 'Hypothesis' 2) and a many-in-relation-to-a-one (the places are places across which Being is distributed, the Others in relation to the One in 'Hypothesis' 3). As mentioned earlier, the goddess' ontology is not one in which either real or apparent contradictions have a place. Thus an equivalent to 'Hypothesis' 4 does not appear in her speech simply because, for her, there is no plurality which can be conceived as apart from Being. Instead, there is the recapitulatory sphere-section, which maps plural points – the center and the surface-points – relations among points (radii) and plural relations among those relations (the equality of all the radii of the sphere) in a fusion of positivity and double-negativity. That is, the kinds of reflexivity and relationality also increase as we move through time and space to the sphere: in time being has no relations; as a metaphorical mass in place, it relates to itself; the surface of the sphere relates those very relations, now schematized as radii, all equally. Parmenidean Being is thus in every way 'the same' (Being), 'in relation to the same' (field of places), 'according to itself' (radial relations between center and surface-points in the sphere), while the One and the Others have contradictory properties as between 'Hypotheses' 2 and 3. And so 'Hypothesis' 1 presents us negatively with an unrelated One, 'Hypotheses' 2 and 3 with positive and negative versions, respectively, of a One in and through Many, the conclusion of

the dialogue's second half with all three as relations build on relations. Similarly – for example, in the Trinity – the Son-Father and Father-Son relations relate two contraries, while the Spirit relates both relations, just as in the triads of Proclus. And then, in the explicitly trinitarian Hegelian terms, in which the in-and-for-itself is also a relation of relations, there is a single negation of the negative for-itself and thus a double-negation of the in-itself.

However these larger issues may be, Parmenides' consciousness of negation is not only comprehensive but also methodologically and formally systematic. For him, to prove is to negate and to double-negate in a rationally articulated sequence.

The Platonic picture of Parmenides was mistaken: even for and to the transcendent, there is a rational path to follow in what is in fact a clear anticipation of Plato's own dialectic. The youthful Orpheus of reason, immortalized with his goddess as he finally realizes that he himself is identical with the goal he has been seeking, passes on to us, through negativity and its overcoming, the way to that eternal place where we always are.

Afterword

The present attempt is an extremely revised version of the original paper delivered at the *Festschrift* conference in spring 1998. It incorporates work done while I was a Visiting Fellow in the Princeton philosophy department in 1999, thanks to the kindness of that department and to sabbatical support from the Texas A&M University College Of Liberal Arts Dean's Office, as well as work done during the summer and fall of 2000.

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Chapter 8

The Cosmology of Mortals

Herbert Granger

Once the goddess has fulfilled her promise to reveal to the 'youth' Parmenides the 'truth' about reality, she turns to her task of teaching him the 'opinions of mortals' about the cosmos (B 8.50).[1] Although most of what the unnamed goddess taught the youth about the 'opinions' has been lost, the surviving fragments and our ancient testimonies indicate that her instruction contained a complete cosmology, largely in the form of a cosmogony, and also included a theogony. The goddess warns the youth, however, that in her depiction of mortal opinions the 'ordering' of her 'words' is 'deceptive' (B 8.51–2), and this judgment is in keeping with the low opinion she expressed earlier in the poem about the opinions of mortals. In the proem of the poem she promises the youth that he will learn 'all things,' not only the 'truth,' but 'the opinions of mortals, in which there is no true trustworthiness' (B 1.28–30). In fragment B 6 she introduces a third way of inquiry, a way peculiar to mortals, in addition to the two ways she laid down for thought in the inauguration of her revelation of the truth (B 2.3–5), and upon this third way, the goddess declares, mortals 'wander two-headed,' 'knowing nothing' (B 6.4–5). These pronouncements by the goddess upon mortal opinions and the path of mortal reflection should make it plain that she does not value mortal opinions.

Yet students of Parmenides' poem remain puzzled by the goddess's harsh judgment upon mortal opinions, and their puzzlement is understandable. The opinions took up much of the poem in its original state, by far its largest part, where much elaboration went into the features of the cosmology of mortals.[2] The resemblance between the opinions of mortals and the truth the goddess reveals about reality aggravates the puzzlement.[3] From at least the days

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[1] I follow the text of Mourelatos, 1970, with some deviations. My translations mimic the traditional renderings, and I rely heavily upon the translation of McKirahan, 1994, while keeping an eye upon those of Guthrie, 1965, and Raven, 1957. For all fragments and for the testimonies, except where otherwise noted, I follow the numeration of the sixth edition of Diels-Kranz, *Fragmente der Vorsokratiker*, 1951.

[2] The consensus of opinion is that most of the goddess's revelation of the truth survives, which must have been fairly brief, since, with the exclusion of the thirty-two verses of the proem, what survives of the truth comes close to only seventy-nine complete verses. Simplicius says of Parmenides' verses on the 'one Being' that they are 'of no great number,' and then proceeds to quote the contents of B 8.1–52 (*In Ph.* 144.25–8). See Guthrie, 1965, pp. 3–4. The surviving verses on mortal opinions amount to only about forty-nine verses, which include the six verses of B 18 that have come down in Latin. The number of verses devoted to mortal opinions must have been considerably larger than those making up the truth, since from what can be gathered from the surviving verses and from what the ancient testimonies relate the range of its topics was considerable. Plutarch reports that Parmenides had 'much to say' about the earth, heaven, sun, moon, and stars, that he 'related in full' the 'genesis of men,' and that he left nothing 'of importance unnoticed' (*Ad. Colot.* 1114b-c). Simplicius says that Parmenides explained the development of all things generated and destroyed 'down to the parts of animals' (*In Cael.* 559.26–7). The opinions of mortals apparently ranged over virtually every topic of cosmology and natural philosophy. They covered the various features of the cosmos, provided a cosmogony (B 10, B 11), physiology, embryology (B 17, B 18), psychology (B 16), and they even added a theogony (B 13). See Guthrie, 1965, pp. 60–1.

[3] Guthrie notes the resemblances as evidence for the positive value of the opinions, 1965, pp. 71 ff.

of Aristotle[4] students of the poem have attempted to redeem the opinions of mortals by trying to secure some sort of significant connection between mortal opinions and the truth or by trying to find some kind of value for mortal opinions on their own terms.[5] The years have yielded a host of proposals for salvaging the opinions. Mortal opinions and the truth may record the same reality as the senses perceive it and as reason understands it.[6] Or mortal opinions may recount reality from the vantage of time instead of from the position of eternity the goddess adopts in her rendition of the truth.[7] Despite the falsity of mortal opinions, they may retain some positive value inasmuch as they offer the best representation of the everyday world of sensible appearances that constitute human experience.[8] It has been pointed out that the goddess does not actually say that the opinions are 'false,' only that the ordering of her words is 'deceptive.'[9] Those who avoid the deception through a careful consideration of the deceptive words of the goddess may perhaps discern their way to a cosmology Parmenides might have found acceptable.[10] Accordingly, the words of the goddess may deceive only by misleading their audience about the truth by hiding it behind the mistake mortals habitually make when speaking about reality.

Mortal opinions remain hopelessly irredeemable. They remain deceptive and therefore untruthful. They merely resemble the truth, and their deception lies in their giving the appearance of truth without yielding it.[11] Reflection upon mortal opinions leads away from the truth about reality, and it can discover no intrinsic value in them. The value in mortal opinions, or the truth to be gathered from their analysis, lies only in the discovery of the defects within mortal opinions which limit them to the mere resemblance of the truth, even when they are at their best, and which render them nothing more than a parody, a burlesque, of Being. When these deceptions are recognized as merely resemblances, appearances without substance, the dislocations in mortal thinking that make for the falsity of mortal opinions may also be laid bare. The goddess justifies her expenditure in recounting mortal opinions by assuring the youth that she recounts to him these deceptions so that he may not be 'outstripped' by any mortal opinion (B 8.61). This may mean when once he recognizes the defective character of mortal thinking in her display of the cosmology of mortals no mortal opinion on that topic will get the better of him because he will recognize what is defective in the cosmologies mortals typically devise. The most deceptive cosmology will be the one closest to reality, the one that gives the best appearance of being reality and resembles it the most. If this most deceptive cosmology cannot fool the youth, he would not be fooled by any of them, all of which would be inferior to

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[4] Aristotle appears to regard the opinions of mortals as representing Parmenides' serious effort at cosmology, which the 'observed facts,' *ta phainomena*, compelled him to take up, and which thereby compelled him to consider the nature of the human world of appearances (*Metaph.* I.5, 986b28–987a2). Cf. Long, 1975, p. 83, and Curd, 1992, n. 6.

[5] See Curd for a helpful review of the recent interpretations of mortal opinions and especially of those interpretations that try to find some positive value in the opinions, 1992, pp. 109–11, nn. 2–6. Kahn despairs of ever resolving the puzzle of the status of the opinions, 1969, p. 705, and Schofield thinks it a 'mystery' why the cosmology is included in the poem, 1983, p. 262.

[6] Owens, 1974.

[7] Chalmers, 1960.

[8] Austin, 1986, p. 7; Nehamas, 1981, p. 108; perhaps even Aristotle may be read in this way, *Metaph.* I.5, 986b28–987a2.

[9] Since the days of Simplicius this observation has been made in order to blunt the judgment of the goddess (*In Ph.* 39.10–12), and more recently Curd appeals to it in her effort to redeem mortal opinions, 1992, n. 66.

[10] Curd's recommendation, 1992, p. 114, which she elaborates on in Curd, 1998.

[11] This point about the nature of the deception of mortal opinions is particularly stressed by Mourelatos, 1970, p. 226, and, although ultimately my path deviates from his, I follow his lead in the interpretation of the nature of the deception. Prominent among others who see the 'opinions' as false are Owen, 1975, p. 54; Long, 1975, p. 89; Barnes, 1982, p. 157.

it, and in the proper circumstances would be more easily unmasked. Accordingly, the goddess gives the best of cosmologies, the one closest in appearance to reality, 'a plausible arrangement' (B 8.60),[12] not one drawn from the history of cosmology, and she devises a cosmology that makes plain the defective first principles common to the cosmologies she finds among mortals. Besides, as many have noted,[13] the youth would hardly require the revelation of the goddess for his knowledge of a historical cosmology, but merely a little research on his part.

The goddess is explicit about the mistake of mortals: 'they made up their minds to name two forms, of which it is not right to name one' (B 8.53–4). Controversy abounds over just what the two forms are. Some insist they are Being and Non-Being; others that they are the Light and Night the goddess names a few verses later as the two principles of the cosmology she develops (B 8.56–9); others, in turn, identify them with both Being and Non-Being and Light and Night.[14] A wearisome controversy weighs down the reading of the phrase, 'of which it is not right to name one.'[15] Several readings have been offered, and the more common of the two most plausible readings takes the phrase to mean that one form may be named and the other not. Aristotle's comments on Parmenides conform to this reading, and, as some think,[16] Aristotle might be expected to understand his own language, despite any shortcomings he may have as a historian of philosophy. The other reading construes the phrase to mean neither form should be named, as if the phrase read more explicitly in the words of Cornford: 'of which it is not right to name so much as one.'[17] When expounding the

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[12] The view of the cosmology adopted by Fränkel, 1975, p. 20; Owen, 1975, p. 54; Stokes, 1971, pp. 147–8. Gallop, 1984, p. 23 conforms to this interpretation, and Long's probably amounts to the same view as well, 1975, pp. 83, 91.

[13] For example, Long, 1975, pp. 82–3. Earlier in this century it was not unusual to find scholars who thought that the mortal opinions represented a historical cosmology, and the favored candidate was that of the Pythagoreans, for example, Burnet, 1930, pp. 185 ff. Antiquity consistently credited the cosmology to Parmenides: Aristotle, *Metaph.* I.5, 986b32–987a2; Theophrastus, *Phys. opin.* fr. 6, from Alexander's commentary on *Metaph.* I.3, 984b3, p. 31; Diogenes Laertius 9.21–2.

[14] For example, Long argues for Being and Non-Being and against Light and Night as the 'two forms' named by mortals, since Light and Night would belong to a specific cosmology and thus could not represent the mistake mortals in general commit, 1975, pp. 89 ff. Vlastos, 1946, pp. 72–4, and Owens, 1974, p. 391 and n. 29, identify the two forms with Being and Non-Being and in turn take them, as they think Aristotle does, to be identical with Light and Night. Reinhardt also identifies the two forms with Light and Night and Being and Non-Being, 1974, p. 304. Mourelatos argues for Light and Night as the two forms without identifying them with Being and Non-Being, 1970, pp. 85–6.

[15] For the different readings and summaries of the controversy, see Guthrie, 1965, pp. 50, 54, and Mourelatos, 1970, pp. 80–5. Another reading that has attracted attention is that of Fränkel, who argues that the mistake of mortals is in naming two forms when they should name only one, the form of Being, but it should not be thought that this form is among the two they name, 1975, p. 21. Reinhardt's reading is close to Fränkel's, 1974, p. 304. As Stokes points out, 1971, p. 145, Fränkel's reading practically comes to the same thing as Cornford's, 'of which it is not right to name so much as one,' 1939, p. 46, although Stokes thinks that it is harder to get Fränkel's reading from the Greek. Simplicius took the mortal error to be the failure to appreciate that both forms of a pair of physical opposites must be named and not one alone (*In Ph.* 31.7–9), and thus on his interpretation the Greek should read in the translation of Raven, whose reading conforms to Simplicius's interpretation, 'For they made up their minds to name two forms, of which they must not name one only,' 1957, p. 278. Schofield does not follow Raven in his rewriting of Raven's chapter on Parmenides, and offers instead, 'of which they needs must not name so much as one,' 1983, pp. 255–6, which is in line with Cornford's reading. Coxon, 1986, p. 220, too reads the passage in the same fashion as Simplicius.

[16] Long, 1975, p. 92.

[17] Cornford, 1939, p. 46. For similar readings, see Schofield, 1983, pp. 255–6; Barnes, 1979, p. 16; Stokes, 1971, pp. 144–6; Furley, 1973, pp. 5–9. Furley argues convincingly that *μίαν οὐ* could mean *οὐδετέραν* by advancing evidence for its meaning *οὐδεμίαν*.

truth the goddess describes mortals as 'two-headed' (B 6.5), whose wandering takes a 'backward-turning path,' and 'for whom both to be and not to be are judged the same and not the same' (B 6.8–9). Since this description of mortals counts as a general comment upon their wrongheadedness, it too should find accommodation in any diagnosis of the mistake mortals commit in their cosmological speculations.

The truth the goddess reveals teaches that reality forms a monism, made up of a single, uniform Being. The mistake mortals make lies in laying down a plurality of principles, more specifically in laying down a dualism of principles, two sorts of Beings, which dualism, like any form of pluralism, conflicts with monism. If there is to be a cosmos of the sort mortals gather to be the case from what appears to them – a world of the rich variety of objects of ordinary sensible experience, which differ from one another in a multitude of ways and which undergo various sorts of change, including perishing and coming-to-be – then, thinks the goddess, there must be a plurality of at least two different sorts of entities. On the assumption of a plurality of beings serving as the principles of a cosmos, the multitude of objects and the change they suffer can be accounted for. Generation and destruction can be made sense of, without the embarrassment of objects arising from nothing and of passing away into nothing, and, since all change, contends the goddess (B 8.26–8), is just a version of generation and destruction, all the other varieties of change can be accounted for.

The cosmos of mortal opinion on its best conception resembles reality as closely as possible within the constraint that it reproduce the flaw common to every cosmology of mortal making. Reality comprises a single Being, which is eternal, timeless, and changeless in every way; it is homogeneous in nature, and it is conceived in corporeal terms as an entity of finite extent and spherical shape.[18] In establishing the pluralism required for a cosmos, the

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[18] The goddess argues for or stipulates the features of Being primarily in the verses of B 8, and there is probably little controversy over the features of eternity (B 8.3, 6–14, 19–21), timelessness (B 8.5–6), changelessness (B 8.26–28), and (perhaps) qualitative homogeneity (B 8.4, 22). The features of singularity, finite extension, and sphericity are subjects of controversy, as well as the corporeal-like nature of Being. The goddess states what has been taken to be the singularity of Being at B 8.5–6 with *ὁμοῦ πᾶν, ἕν, συνεχές*, and the arguments for the indivisibility of Being would seem to support its being a single object of a single kind. Barnes, 1979, is prominent among recent scholars who have argued against the singularity of Being. He argues that there is no evidence for crediting Parmenides with 'real monism,' that Being is limited to a single object of a single sort, and he even argues that there is no evidence for the homogeneity of Being, 1979, p. 18. See also Barnes, 1982, pp. 207–10. Others who argue against the singularity of Being include Curd, 1991 and 1998, and Mourelatos, 1970, pp. 130–3. For criticisms of Mourelatos, see Austin, 1986, pp. 20–1. Yet, as Schofield notes, it is hard to resist the view that Parmenides intends the singularity of Being when he asserts its continuity, 1983, p. 251. Parmenides' monism may be thought to consist in his taking reality to be a single object in the sense that Being is a continuous, that is, an unbroken, mass which is all of the same sort, and, despite its being a continuous mass, something he cannot conceive of as divisible into distinct parts. Owen, 1975, pp. 61 ff., has argued vigorously against the finite extension of Being and against its possession of any shape, since he takes the spatial language of the goddess to be metaphorical and to indicate the uniformity of Being in space, which parallels its temporal invariability. Those who hold for some version of the sphericity of Being include Mourelatos, 1970, pp. 128–9; Guthrie, 1965, pp. 45 ff.; Barnes, 1982, pp. 203–7; Schofield, 1983, p. 253. Parmenides perhaps is capable of making the distinction between an intelligible object outside space and time and a sensible object, since for him Being does not seem to be an object of sensation, but only of reason (B 7). Nonetheless, he might still conceive of intelligible Being in corporeal terms, as if it were a physical, spatial object, extended in space, shaped, bound by a limit, and continuous. The goddess declares a 'limit' for Being and says that it is 'like the bulk of a well-rounded ball' (B 8.42–4). Aristotle perhaps recognizes that Parmenides' thought is bound by a spatial model of existence, when he says of Parmenides and his followers that, though they were the first to realize that 'knowledge and wisdom' demand 'unchangeable beings,' they naturally applied their description of eternal objects to sensible objects, since all they knew about was

goddess deviates the least from monism by laying down a pluralism that is a dualism of only two principles,[19] Light and Night: the one 'aetherial fire of flame' (B 8.56); the other 'blind Night' (B 8.59), what Aristotle reports to be 'earth.'[20] The two beings of Light and Night are not presented in the poem as coming to be or as perishing, and, as the foundations of the cosmos, they are likely intended to be eternal, like the Being of reality. They are 'both equal' (B 9.4), which plausibly means that they are on a par with one another in their character. The goddess says expressly of Light that it is 'the same as itself in every direction, but not the same as the other,' namely, Night (B 8.57–8). Light in the uniformity of its character retains its own integrity as a being of a single, homogeneous nature, which thereby remains distinct from Night. In its distinctness and uniformity of nature Light resembles the homogeneity of Being, which is 'of a single kind' (B 8.4) and 'all alike' (B 8.22), 'remaining the same in the same and by itself it lies' (B 8.29). Since Light and Night are 'both equal,' it is reasonable to suppose that Night too retains its own integrity as a distinct, homogeneous entity, and that both Light and Night resemble Being in its uniformity.[21] Even though Night and Light are separate from one another, they are linked conceptually in their opposition to one another. They are 'opposite in body,' and the goddess reports that mortals 'set down signs apart from one another' (B 8.55–6), which mark the opposition of Light and Night. The salient features in this opposition the goddess says are the 'rare' and the 'light' in weight (*ἀραιόν* and *ἐλαφρόν*),[22] which belong to Light (B 8.57); the 'dense' and the 'heavy' (*πυκινόν* and *ἐμβριθές*), which belong to Night (B 8.59). These opposing beings of Light and Night share in the constitution of all the other phenomenal objects of the cosmos: 'all things have been named Light and Night' (B 9.1), and 'all is full of Light and obscure Night together' (B 9.3). The various features of these phenomenal objects depend upon their share of Light and Night: 'the things which accord with their powers [that is, the powers of Light and Night] have been assigned to these things and those' (B 9.2). Fragment B 16 in the light of Theophrastus's comment upon its content indicates that the human body and human thought are mixtures of Light and Night.[23] The fragments and the ancient testimonies indicate that all the other

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'the substance of sensible objects' (*Cael.* III.1, 298b17–25). See also Mourelatos, 1970, p. 124, who too may hold that Parmenides understands reality in spatial terms when he says one must concede that Parmenides conceives of 'reality in terms of a sphere.'

[19] Tarán, 1965, p. 225; Stokes, 1971, p. 147.

[20] *Metaph.* I.5, 986b34; *GC* I.3, 318b6–7. As Cornford, 1952, pp. 119, 193–4, notes, Night and Day are among the first cosmic features to appear in the cosmogony of Hesiod (*Th.* 115–25). Cornford suggests that on Hesiod's scheme Erebus and Night are male and female duplications of darkness and Aether and Day the male and female duplications of light, pp. 193–4.

[21] Not everyone believes that Light and Night are on a par and share equally the feature of homogeneity. Those who think so include Reinhardt, 1974, pp. 298, 304; Fränkel, 1975, p. 21; Mansfeld, 1964, p. 133; Mourelatos, 1970, p. 89; Owens, 1974, n. 30; more recently Laks, 1990, p. 13; perhaps Curd, 1992, p. 119 and n. 32. Those who disagree include, for example, Guthrie, 1965, p. 73 and n. 1 and Finkelberg, 1988, pp. 4–7. Lloyd, 1966, p. 217, suggests that Light and Night are equal cosmic powers, whose equality is comparable to political equality, which justice maintains between them. He looks approvingly upon Aëtius's statement that the *δαίμων* of B 12 is the goddess Justice (2.7.1 (A 37)).

[22] I follow Verdenius, 1947, pp. 285–7, who argues against the usual practice and retains *ἀραιόν* while deleting *ἤπιον*, and Guthrie, 1965, p. 51, too supports his rendering. Simplicius quotes B 8.57 three times and on each occasion supplies three adjectives for Light, *ἤπιον*, *ἀραιόν*, and *ἐλαφρόν*, of which one must be deleted, since the three make the verse too long. Like Guthrie and Verdenius, I think that *ἀραιόν* should be preferred over *ἤπιον* in order to secure a contrary that matches more exactly the contrary, *πυκινόν*, a feature of Night. Since Night and Light stand in opposition to one another, their features should stand in clear opposition to one another. Mansfeld, 1964, p. 132, also retains *ἀραιόν*, but deletes *ἐλαφρόν* instead of *ἤπιον*. See Tarán, 1965, p. 216, n. 38, for objections to Verdenius's rendition.

[23] Theophrastus, *Sens.* 1–4 (A 46).

phenomenal objects come to be and perish through the mixture and separation of Light and Night.[24] Fragment B 12 perhaps reflects this view of coming-to-be when in that passage the goddess explains that in the genesis of one of the heavens fire is 'shot among' the Night of that heaven (B 12.2). Despite their mixing with one another, Light and Night may be thought to retain their integrity if they form a multitude of indivisible particles, analogous to the atoms of Democritus, which may mingle to form larger wholes, while retaining their own nature intact within these atomic units.[25] Since fragment B 8 shows that the goddess instructs the youth that all change is a variety of generation and destruction (B 8.26–8), it would seem that once these are permitted, or replaced, by the mixture and separation of Light and Night, the other forms of change would be provided for, at least in the eyes of the goddess. Since 'all is full of Light and obscure Night together,' and since these have 'no share in nothing' (B 9.3–4),[26] the cosmos would be a *plenum* of Light and Night. Accordingly, like the reality the goddess reveals in her discourse on truth, the cosmos of mortal opinions gives the appearance of having no share of Non-Being and of being full of all that there is.

Parmenides gives the uncanny impression that he anticipates his successors in their own efforts to conciliate the demands of the goddess's argument for the character of reality and the demands of common sense. The cosmology the goddess depicts might be thought, then, to bear the seeds of its own overthrow, or more positively it might be thought to hold out hope for a genuine cosmology that even the goddess could sanction.[27] But this promising appearance is deceptive, since the goddess is unable to condone any plurality of beings. The goddess cannot condone the forms of pluralism the successors of Parmenides promote any more than she can condone the pluralism of the mortals she reviews, as perhaps the best of the cosmologies, a cosmology that tries to match Being, but only in vain. The goddess's intolerance of plurality may be appreciated from the arguments and statements in her revelation of the truth. On the goddess's conception of Being, which requires the qualitative homogeneity of Being, any plurality of beings presupposes Non-Being.

The passages that bear upon plurality from the goddess's discourse on truth are those on the indivisibility of Being, since it is the indivisibility of Being that rules out pluralism. The central passage on indivisibility is made up of verses 22 through 25 of B 8, and it may be supplemented with contributions from B 4, as well as from subsequent portions of B 8. There seem to be two arguments in support of the indivisibility of Being. The first appears to be based on a premise[28]

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[24] Aristotle, *GC* II.3, 330b13–15; Plutarch, *Adv. Colot.* 1114b; Diogenes Laertius 9.22; Aëtius 2.7.1 (A 37); Anonymus Byzantinus 3.1.4 (A 43a).

[25] Laks suggests that once Light and Night begin to mix they surrender their 'original purity,' 1990, p. 13. Empedocles also requires the mixture of a plurality of primal eternal entities for the establishment of the cosmos, and yet he insists that these entities retain their original character. Of the four 'roots' of air, earth, fire, and water, he says that 'these alone exist, but as running through one another they become different at different times, also continuously forever the same' (B 17.34–5).

[26] Mourelatos argues convincingly for his non-standard rendering of *ἐπεὶ οὐδετέρῳ μέτα μηδέν* as 'since nothingness partakes in neither,' 1970, p. 85. The translations of Raven, 1957, p. 282, and Schofield, 1983, p. 256, also agree with Mourelatos's reading, and on Schofield's rendering the passage reads 'since neither has any share of nothing.' See Tarán for the controversy over the verse, 1965, pp. 163–4.

[27] Kahn holds that Parmenides anticipates his successors, who are dependent upon him, 1960, p. 154. Curd regards Parmenides as hinting at an acceptable cosmology within the deceptive words of the goddess, 1992, p. 114. Laks thinks that Empedocles's cosmology conforms to the dictates of Parmenides upon Being and that this indicates that the opinions have their basis in the truth, 1990, p. 3.

[28] Cornford, 1939, p. 35, too seems to recognize no argument for the premise on homogeneity. The premise generally has been recognized as difficult to ground in the verses prior to it, and this has compelled many to read the premise in a way that shuns the reading of qualitative homogeneity: for example, Owen, 1975, p. 58; Stokes, 1971, p. 143; Gallop, 1984, p. 16.

unargued for: 'nor is it divided, since it is all alike' (B 8.22).[29] The assumption is that Being is qualitatively homogeneous throughout, 'of a single kind' (B 8.4), as the goddess says when she first points out the basic features of Being.[30] Since Being is of a single kind, there is no point

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[29] The usual reading of the premise *ἐπεὶ πᾶν ἐστιν ὁμοῖον* is as I have rendered it, 'since it is all alike,' where *ὁμοῖον* is predicative in nature. Owen, 1975, pp. 58–9, reads the *ὁμοῖον* adverbially, so that the premise would read 'since it exists all alike'; and he is followed by some, for example, Guthrie, 1965, p. 31; Stokes, 1971, p. 135 and n. 89; Gallop, 1984, p. 16. See Tarán, 1965, pp. 106–9, for the predicative reading and comments against Owen's adverbial reading. See also Mourelatos, 1970, p. 111, n. 30, who observes against Owen's adverbial reading and in favor of the predicative the parallel between the *ἐὸν γὰρ ἐόντι πελάζει* of B 8.25 and the Homeric proverb, *αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον* (*Od.* 17.218). See Tugwell, 1964, pp. 37–9, and Stokes, 1971, pp. 135–7, for convincing arguments against Owen's temporal reading of the goddess's argument for indivisibility.

[30] Could there be a Parmenidean argument for qualitative homogeneity that depends upon some version of the prohibition of Non-Being? Malcolm, 1991, offers two candidates, in the form of arguments against plurality, one of which is based on an existential reading of the 'is' that is the Being of the poem, the other allegedly upon a predicative reading. Even though Malcolm is inclined to think that plurality depends upon the void, since he believes that this makes the best sense of the reaction of Parmenides' successors, Empedocles and Anaxagoras, he sets up alongside his case for the void the existential and predicative arguments for the sake of weighing the value of the alternative cases for homogeneity. Malcolm's arguments depend upon the view that plurality depends upon distinguishability. The predicative argument, thinks Malcolm, takes the 'is' of Being to be 'is something' and the 'is not' to be 'is nothing.' Thus the distinction of two objects from one another, *X* and *Y*, entails Non-Being in the form of nothing, since the *Y* is not *X*, 'is not something', and thereby the *Y* is not, that is, is nothing, p. 85, cf. pp. 76–7. It should be carefully noted that Malcolm's argument depends upon the 'is' of identity, instead of the 'is' of predication. His argument, however, should carry little weight, even if it could apply to the 'is' of predication, since the predicative rendering of 'is' is problematic. See Barnes for arguments for the existential reading of the 'is' of Being, 1982, pp. 160–1, which Malcolm acknowledges to be the dominant reading within the scholarship, p. 78 and n. 8. For those who hold the predicative reading or something very close to it, see, for example, Mourelatos, 1970, pp. 55 ff.; Nehamas, 1981, p. 106; Curd, 1992, p. 123; Curd, 1998, p. 39. On the existential reading of 'is,' distinguishability entails Non-Being in the form of non-existence, according to Malcolm; for in the distinction between *X* and *Y*, the *Y* is not *X*, and thus non-existence is introduced because the *Y*'s being *X* does not exist: 'if something is not *X*, then its being *X* does not exist, but non-existence is inconceivable,' p. 85. This argument, however, seems to depend upon the non-existence of a *fact*, that is, the non-existence of the fact, *the Y's being X*, instead of the non-existence of a *thing*. But it is more likely that Parmenides' idea of Non-Being and of Being depend upon the non-being and the being of a thing rather than of a fact, since, among other reasons, the idea of a fact is somewhat hard to come by. (Mourelatos, 1970, pp. 59–60, points out that the early natural philosophers developed ontologies of 'things' rather than of 'facts.') Malcolm's understanding of the existential position, p. 88 and n. 34, which he credits in particular to Gallop, 1984, p. 16, seems to approximate the so-called veridical reading of 'is,' for which Kahn is ultimately responsible, 1969, pp. 710 ff. (For a position similar to Gallop's, see Furley, 1973, p. 8, and for a comparison with the veridical reading, see Kahn, 1969, pp. 719–20). On the veridical reading of the 'is' of Being, the 'is' is read as '… is the case' or '… is true,' and takes for its object a proposition. The example of '… is the case' would suggest that the 'is' could also take a fact for its object, what Malcolm's argument based upon his existential reading takes for the object of 'is.' This would still be an existential reading, since the 'is' read as '… is the case' amounts to an existential assertion that a fact exists. The veridical reading simply yields both a veridical and an existential interpretation, since it may be read as taking for the object of 'is' either a proposition or a fact. Barnes in his argument against the veridical reading points out that the properties the goddess proves to belong to Being could not generally or in any straightforward way belong to a proposition, 1982, p. 161. Barnes's observations could apply *mutatis mutandis* to the reading that takes Being to be a fact. Besides, if Parmenides believes that the denial of a fact or of a proposition introduces Non-Being, he would put himself in the awkward position of being unable to deny any fact or proposition, of not being able to say that something is not the case without his making a reference to Non-Being, that is, to the non-existent fact or the untrue proposition. This observation probably would

within Being which differs from any other, and thus there is no basis for a division into a plurality of different sorts of beings.[31] What the assumption of the goddess may largely ride upon is her understanding of the word 'being,' which, as Aristotle also observes,[32] she takes to be univocal. The word has a single meaning, and scholars have been willing to concede a commitment to existential homogeneity on the goddess's part, although this commitment need not require qualitative homogeneity.[33] The goddess may treat 'being' univocally, so that every sort of being would exist in the same sort of way, but this existential homogeneity would not issue in qualitative homogeneity for the Being that is reality. Yet existential and qualitative homogeneity may amount to the same thing for the goddess. 'Being' or 'existence' is a qualitative term for the goddess, a 'predicate,' as it would probably be for any philosopher before Kant. The 'is' of existence has descriptive import for the goddess, and its application is informative about the nature of what it is applied to. If the word 'being' also expresses the very nature of its subject, its specific nature (B 8.2), and thus if all Being amounts to, qualitatively speaking, is Being, then Being would be of a single, uniform character. The goddess in her conception of Being cannot abide a heterogeneity of Being, and this intolerance she shares with the Ionian cosmologists who preceded Parmenides, and who came to be known as the 'monists.' These early cosmologists in their variety of 'monism' believe that every object of sensible experience is fundamentally of the same nature as every other object.[34]

The appreciation of the second argument against divisibility may be enhanced by drawing together different passages.[35] After the goddess establishes the indivisibility of Being by declaring its qualitative homogeneity at B 8.22, she immediately goes on to deny degrees of Being: 'nor is it any more here, which would keep it from holding together, nor any less, but it

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not move Malcolm, however, because he remains unmoved by Barnes's observation, 1982, p. 160, that the goddess utters negative predications. Such utterances should be prohibited if the predicative reading is correct, since any negative predication introduces Non-Being. Malcolm, n. 7, is not persuaded by Barnes, since he thinks that Parmenides is 'notorious' for using forms of expression he has prohibited.

[31] Yet, as Aristotle insists, what forms a continuum is infinitely divisible (*Ph.* VI.1).

[32] *Ph.* I.3, 186a32–b4. For Aristotle's observation Mourelatos, 1970, p. 262 and n. 104, cites *Ph.* I.2, 185b20–30 and *Metaph.* XIV.2, 1089a1–15. Guthrie too takes Parmenides' use of 'being' to be univocal, 1965, p. 73, and perhaps also Kahn so takes it, 1969, p. 719.

[33] For example, Barnes, 1982, p. 210; cf. Gallop, 1984, p. 16.

[34] This 'qualitative monism' may be ascribed with some assurance to Anaximenes (for example, A 7) and possibly to Thales, if anything can be believed of the reports about him from antiquity (for example, A 12, which is Aristotle, *Metaph.* I.3, 983b6–21). Heraclitus may be thought to be a monist after the fashion of Anaximenes on the basis of B 30, and the doxography takes him to be such a monist (Diogenes Laertius 9.8). Yet fr. B 90 casts doubt upon this judgment. The *apeiron*, from which Anaximander derives the world-order, is perhaps not a material of a single sort (A 9 and B 1). As Guthrie, 1962, pp. 86–7, suggests, it may be a medium in which the opposing features of the world-order – the hot, the cold, and the like – are held in suspension and become activated and distinct from one another only in the genesis of the world-order. (See also Cornford, 1952, p. 178.) Accordingly, the *apeiron* may be more along the lines of a mixture or a compound of the opposites or of the objects they constitute (cf. Aristotle, *Metaph.* XII.2, 1069b22). Aristotle treats the Eleatics as additional monists at *Metaph.* I.3, 984a27 ff.; cf. *Ph.* I.4, 187a20–3; III.5, 204b22–9, and Cornford follows him in holding that Parmenides shares with his predecessors a belief in a reality of 'One Being,' which Cornford describes on Parmenides' behalf as what is 'a single continuous and homogeneous substance,' 1939, p. 29. See Owen for the opposing view, 1975, pp. 55 ff.

[35] Malcolm takes B 8.22 to say that 'there cannot be any distinctions within what is,' which he takes to rule out any form of pluralism, 1991, p. 76. The fact remains that the goddess continues her argument with at least verses 23 and 24. I take 8.22 to assert the qualitative homogeneity of Being, that Being is all of the same sort, 'all alike.' Verses 23–4 presuppose this sort of homogeneity, and they reject the proposal that homogeneous Being may be heterogeneous, or form a plurality, through its being denser and rarer, more and less.

is all full of what is' (B 8.23–4). She continues by drawing a further related conclusion: 'therefore, it is all continuous, for what is draws near to what is' (B 8.25). Later in B 8 in a context in which the goddess is stressing the uniformity of Being she reintroduces and rejects again the idea of degrees of Being: 'nor is what is in such a way that there could be more of what is here and less there' (B 8.47–8). Being does not, then, come in different degrees, where there is more or less of Being, and thus there are no points within Being where there is more or less of Being which would prevent Being from drawing together and from forming a uniform, unbroken expanse of Being. Being does not come in the form of more or less of Being, since this conception of Being involves the introduction of Non-Being, what is unintelligible: unthinkable, unknowable, unspeakable (B 2.6–8, B 3). For there to be a contrast between more of Being and less of Being, there must be something to contrast with Being. Since Being is all there is, the contrast would have to be with Non-Being. For a given area to have more of Being in contrast with another area that has less of Being the one area must contain more Being because it contains less of Non-Being and the other area must contain more of Non-Being. Even if the one area contains nothing but Being, and is completely full of Being, the other area, which contains less of Being, must yet contain Non-Being, so that it may be less in Being than the area full of Being.

A plausible way in which the goddess may conceive of more or less of Being is in terms of density, where Being may be conceived as coming in dense and rare forms.[36] On this model Being could consist of particles that may be closely or loosely packed together. Less of Being is possible only if there are fewer particles of Being in a given area in contrast with an area in which there is more of Being by there being more particles of Being. For there to be fewer or more particles of Being in a given area, then there must be something separating or coming between or mixed among these particles, and this could only be Non-Being. It cannot be Being that comes between the particles, since this would result in the same amount of Being in each area, in effect, areas completely full of Being, and thus there could not be more or less of Being. Since Non-Being is unintelligible, Being could not come in degrees, in the form of the more and the less or of the dense and the rare. Since there is no Non-Being, there is no basis for degrees of Being and nothing that prevents the hypothesized particles of Being from drawing together and forming a continuous, indivisible, uniform Being.

In fragment B 4 the goddess is perhaps expressly denying that Being comes in rare or dense versions, when she says: 'for you will not cut off what is from clinging to what is, neither being scattered everywhere in every way in order nor being brought together' (B 4.2–4). When she denies that Being could be 'scattered everywhere' or could be 'brought together,' she may be denying that Being could be subject to rarefaction or to condensation. There is no Non-Being that would keep Being from 'clinging' to Being (cf. B 8.46–7) and thereby would allow for the scattering of Being about in an expanse of Non-Being, that is, for its being rarefied, where particles of Being are separated from one another by Non-Being. Nor is there any Non-Being that would allow for the bringing together of Being, that is, for its being condensed, from its being initially in a state in which it had been scattered about in Non-Being.

If *per impossibile* Being came in parcels of the more and the less, of the dense and the rare, then Being would be divisible into these parcels, and these parcels might be thought to provide for a plurality of different sorts of beings, even within a view of Being that takes it to be qualitatively homogeneous in nature. On such a view, a plurality of different objects would differ from one another by each being variations in the density of the same sort of Being. This scheme, as Aristotle observes,[37] amounts to a pluralism of the rare and the dense, and this is

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[36] This observation is hardly original, nor the suggestion that there is an allusion on Parmenides' part to Anaximenes: for example, Raven, 1957, p. 275; Guthrie, 1965, p. 33.

[37] *GC* II.3, 330b9–13; cf. *Metaph*. I.4, 985b10–12.

just the sort of scheme some of our ancient witnesses attribute to Anaximenes of Miletus.[38] Some of our testimonies report that Anaximenes tried to account for the variety within perceptual experience, the different objects of earth, fire, and water, as just variations upon the single sort of Being, air. This variation is achieved through what the ancient testimonies took to be the rarefaction and condensation of air, what in the case of condensation Anaximenes called 'felting.' The goddess could very well be arguing that Anaximenes, and the like-minded among the Ionian monists, cannot account for the different sorts of objects within their monism – the airy, earthy, watery, fiery objects – through the rarefaction and condensation of the same sort of Being, since these mechanisms presuppose the unintelligible idea of Non-Being.

Those who like Anaximenes introduce a pluralism of the rare and dense may also think that the cosmos they describe forms a *plenum*, that is completely full of the one sort of Being in all its variations in degree which forms the basis of their cosmology. But these cosmologists fail to realize that, when they distinguish between a plurality of objects by maintaining that each object is simply more or less of Being, they have introduced inadvertently Non-Being and have failed to maintain a *plenum*. Some cosmologists, however, might argue for a plurality without trying to maintain a *plenum*, but in so doing they too would introduce Non-Being, although in a starker fashion. They might argue that all objects are of the same sort and are not variations in degree of a single sort of Being. Objects are units of Being that are distinct from one another merely through the gaps in Being between them. On such a scheme these cosmologists might even allow for the aggregation of the units of Being, and thus, along the lines of the speculation of the atomists who postdate Parmenides, they may allow for additional objects of a variety of characters which are merely different arrangements of these units of Being. The goddess perhaps does not directly address a case of this kind, which overtly introduces gaps in Being, although her comments could easily apply to it. The gaps in Being are Non-Being, and, since Non-Being is unintelligible, a scheme that depends upon gaps for setting up a plurality would be unintelligible. In her discourse upon cosmology the goddess perhaps ignores this sort of scheme, which amounts to a dualism of Being and Non-Being, since the cosmology she lays down for scrutiny resembles reality as much as possible and thus would have no explicit place for Non-Being. Light and Night allegedly have 'no share in nothing.' The goddess is probably not calculating that any mortal would be so bold or so foolish as to introduce explicitly Non-Being into his cosmology.

The cosmology of mortal opinions the goddess surveys is founded upon a plurality of beings, and the nature of the plurality is after the manner of that of Anaximenes' cosmology. It is a pluralism within the assumption of a *plenum* and within a conception of Being that takes it to be qualitatively homogeneous, where the difference between objects depends upon their difference in degree of Being, in their being parcels of more or less of homogeneous Being. Therefore, it is a pluralism that is compelled to introduce Non-Being so that there may be a distinction between objects that are more of Being and less of Being, where an object that is more of Being has less of Non-Being than another object, and an object that is less of Being has more of Non-Being than another object. Since any cosmology devised by mortals within the limits set by the goddess depends upon the pluralism of the more and less of Being, 'the more' and 'the less' would be the best candidates for the 'two forms' mortals name in the establishment of their cosmology. In the case of the cosmology of the goddess's construction it is the dualism of Light and Night that provides the basis for pluralism. Both Light and Night mortals assert exist, and they treat them as on a par with one another, 'both equal.' They are distinct from one another, yet they remain bound conceptually to one another, since they stand to one another as 'opposites.' In their opposition they too are more and less of Being, since, from among their opposing features, they stand out as the 'rare' and the 'dense.' Thus, like any such pair on the

[38] Anaximenes (A 5, A 7).

goddess's conception, Light and Night require Non-Being for their existence, despite the intention of mortals. Light and Night, which make up the whole of reality in the cosmos of mortals, could only be rare and dense versions of Being. They cannot be rare and dense versions of each other, since by hypothesis they have no share in one another (B 8.57–9). But Being can be rare and dense only if something other than Being is available for the contrast between rare and dense Being, and this could only be Non-Being.

The more and the less, no matter what they may happen to be in a given cosmological scheme, even if they happen to constitute the full and the less full, are in themselves incoherent because the very idea of them entails their dependence upon unintelligible Non-Being. Therefore, neither of the 'two forms' that mortals 'name' in the establishment of their cosmology – the more and the less or the dense and the rare – can meaningfully be named. It is not that one form can be named and the other not. The one as 'the more' presupposes its contrast with 'the less,' and the two of them presuppose in their conception Non-Being. The same applies to 'the less,' which presupposes 'the more,' and the two of them introduce Non-Being. Any endeavor to name or to speak or to think about any one of the pair in the dualism is conceptually dependent upon the other of the pair and upon their presupposition of Non-Being. Although mortals may think that they are committed to a reality that is a *plenum*, which makes no place for Non-Being, when, for example, they insist that Light and Night have 'no share in nothing,' their conception of their dual principles as the rare and the dense commits their cosmology to the introduction of Non-Being and the unintelligibility it draws in its wake.

The effort to set up a plurality is one way in which mortals display their ineptitude, their confusion, their two-headed wandering. In this effort they introduce Non-Being, even when they explicitly lay down a *plenum* and explicitly reject Non-Being. Mortals are those, the goddess tells us, 'for whom to be and not to be are judged the same and not the same' (B 6.8–9). They try to speak and reason about Being, about reality, which they rightly enough take to be 'not the same' as Non-Being. The 'two forms' they name in founding their cosmology they take to be the things that divide up reality between them. Their discourse on Being, which is their discourse on the 'two forms,' draws mortals into self-deception, since they fail to recognize that it draws them into discourse that introduces Non-Being, as what must be drawn into the circle of reality, of the nature of things, if they are to lay down a cosmos of a plurality of objects. Hence mortals confuse Being with Non-Being because their idea of Being, which encompasses the 'two forms' of the 'rare' and 'dense,' brings in Non-Being, since their conception of these 'two forms' requires Non-Being. In this way they might be said to treat Being and Non-Being as 'the same.' In trying to establish their cosmology by grounding it upon two sorts of Being, mortals take a backward-turning path and wander into the way of Non-Being.

Since the goddess thinks that any pluralism that calls for a *plenum* and also treats Being as qualitatively homogeneous must be based upon the rare and the dense, she probably does intend for the 'two forms' that mortals name to be identified with Light and Night, inasmuch as Light and Night count as the 'rare' and the 'dense.' Accordingly, the goddess would not intend for the 'two forms' to be identified with Being and Non-Being, an identification that many students of the poem have found attractive and have made the goddess's own intention. The two forms as the rare and dense each conceptually require the unintelligible idea of Non-Being, and if their conception issues in unintelligibility, they can hardly count as intelligible conceptions in their own right. Accordingly, neither of the two forms could count as Being, which alone is the intelligible object of thought (B 3).

Yet Aristotle asserts that Parmenides associates Being with Light and Non-Being with Night. Parmenides, says Aristotle,

> sets down two causes and two principles, calling them hot and cold, that is, fire and earth; and of these he ranks [*τάττει κατὰ*] the hot with Being and the other with Non-Being (*Metaph.* I.5, 986b33–987a2).

The hot is Light; the cold, Night. Aristotle has the complete poem, and he might be relying upon a lost portion for what he says. Yet he may be voicing only his own interpretation.[39] It is important to note, however, that Aristotle does not actually identify in this passage, as some would have it,[40] Light and Night with Being and Non-Being. He only says that Parmenides 'ranks' the one with Being and the other with Non-Being. The idea of 'ranking' might signify at most, as some have suggested,[41] an analogy between Light and Being and between Night and Non-Being. But even this suggestion may not be sustainable, since there is good reason for placing Light, rather than Night, closer to Non-Being, and since Night, as well as Light, may be appreciated as possessing resemblances with Being.[42] Both Light and Night only resemble Being, and their appearance of reality is only a deception, since conceptually they each carry with them the unreality of Non-Being. Since they both fall short of genuine Being, neither of them may count as anything more than pseudo-beings. Their deceptive nature as the mere appearance of reality may even be reflected in the word the goddess uses to express their nature as the 'two forms' within the cosmos. The word for 'form' she uses is *morphê*, which may be used to indicate 'kind' or 'sort,' but it may also indicate the 'shape' of something and thereby its 'appearance' to an observer.[43] The goddess's selection of this word, when she may have found other ways without the connotation of 'appearance' of indicating their character as 'kinds,' may be meant to suggest that she has turned from reality to appearances, what gives the deceptive appearance of reality without being reality. Since neither Light nor Night in their pseudo-existence could count as Being, the reason for ranking Light with Being and Night with Non-Being may be based only upon a preponderance of resemblances between Being and Light over those between Being and Night. Since Light is no more Being than Night, this preponderance would merely compound the deception and confusion that dominate mortal thinking. Over the years scholars have provided a wealth of observations upon the similarities and differences between the goddess's revelation of truth and her review of mortal opinions, and prominent among these observations is Alex Mourelatos' careful study of the deceptive words of the goddess.[44] One cannot hope to rival the quality of these observations, and a review of them would be out of place for our venue. It is sufficient merely to note the more salient points of similarity and dissimilarity between Being and Non-Being and Light and Night in order to appreciate the difficulty of ranking consistently Light and Night with either Being or Non-Being.

The traditional reading of the proem takes its drama to be the youth's journey under the escort of 'maidens' who are 'children of the Sun' from night upwards into the light, from the mortal realm to the divine, where in this divine realm of light he learns the truth about reality.[45] On this traditional reading the journey from night to light is an allegory for the passage from ignorance to knowledge, and thereby night and light would receive early on in the poem negative and positive epistemic values, even if they are not actually identified or correlated with Non-Being and Being in the proem.[46] The traditional reading, however, has its critics, who

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[39] For some who think that the ranking is merely Aristotle's invention, see Tarán, 1965, p. 290; Stokes, 1971, p. 144; Furley, 1973, p. 6; Mackenzie, 1982, n. 26.

[40] Long holds that Aristotle 'repeatedly' makes this identification of Light with Being and Night with Non-Being, 1975, p. 92. At *GC* I.3, 318b6–7 Aristotle does make this sort of identification.

[41] Mansfeld argues that Aristotle's words require nothing more than an 'analogy,' 1964, p. 138, and Guthrie concurs, 1965, p. 56 and n. 2.

[42] Mourelatos observes that even an analogy cannot be maintained because of the different alignments that may be discerned between Light and Night and Being and Non-Being, 1970, p. 86.

[43] LSJ s. v., μορφή: 2.

[44] See Mourelatos for the students of the poem who have collected the many similarities and dissimilarities between truth and opinions, 1970, p. 222.

[45] For example, Bowra, 1937, pp. 98–9.

[46] Mourelatos stresses that the positive character of Light depends upon an unexpressed parallel between the languages of Light and Being, 1970, p. 241.

argue that the movement is rather the reverse, from light downward into night, that the maidens leave the 'House of Night' and come up into 'the light' in order to escort the youth Parmenides back down to their 'House of Night' in the nether region.[47] Yet the opinions of mortals also provide their own support for the understanding of 'light' in epistemic terms of a positive nature and of 'night' in negative epistemic terms. The Night of the cosmology of mortals is 'obscure' or 'hidden' (*ἀφάντου*, B 9.3) and also 'blind' or even 'unknowing' (*ἀδαῆ*, B 8.59), which are terms of negative epistemic value. Light is provided with a positive epistemic value in a comment on the epistemology of mortal opinion made by Theophrastus in his consideration of the content of B 16: 'for as each person has a mixture of much-wandering limbs, so is thought present to humans. For that which thinks, namely, the constitution of the limbs, is the same in all humans and every one; for which is more is thought.'[48] B 16 maintains that thought is based upon the constitution of the body, and that thought is determined by the domination of one portion of the mixture within the body over the other: 'for which is more is thought.' Theophrastus tells us that the portions of the mixture are the hot and the cold, that is, Light and Night, and that thought and perception are identical. These portions provide the basis for the perception of what is like them, light and heat, dark and cold, so that mortal opinions on perception proceed upon the assumption common in antiquity that like knows like. Even a corpse, reports Theophrastus, perceives, but because it is shorn of fire, of its Light, it perceives only the opposite of what is perceived through fire, namely, dark, cold and silence. In the course of his comments Theophrastus says that the thought or perception based upon fire, or upon Light, within the bodily mixture is 'better and purer.'

These epistemic values for Light and Night might provide the basis for the goddess's association of the one with Being and the other with Non-Being, or at least they might have provided Aristotle with the basis for his judgment about the ranking. Being as the subject of knowledge might be readily associated with Light because light illuminates objects so that they may be known. The thought that is due to the hot, or to Light, is reported by Theophrastus to be 'better and purer' than that due to the cold, or to Night. It might be presumed that the superiority of perception based upon Light is due to its being more informative about reality. Since like knows like, the epistemic superiority of Light would seem to mean that it is in a better position to provide knowledge of reality because it is of the same stuff as reality. Accordingly, it should be put alongside Being. Non-Being is the unintelligible, what cannot be understood at all, what cannot be made out: 'for neither may you know that which is not … nor

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[47] For example, Morrison, 1955, pp. 59–60, who even identifies the goddess with the Night of Hesiod's *Theogony* (123–5, 211–25, 744–60). Mansfeld, 1964, pp. 222–61, and various German scholars in this century have pressed the case with detail against the traditional reading, and Furley probably is responsible for bringing their alternative interpretation more fully to the attention of the English-speaking world, 1973, pp. 1–5. He suggests that the maidens take the youth from the light back to the House of Night in the neighborhood of Hades where there is no difference between the opposites of Night and Day, of light and night. Gallop, 1984, pp. 6–7, who follows Furley, suggests that this dissolution of the opposition between light and night reflects the truth the goddess reveals to the youth. Schofield in his comments and translation also conforms to the reading that takes the movement to be from light to night, 1983, pp. 243–4. McKirahan suggests that the proem is simply unclear about the direction of the journey, 1994, p. 158, which is also the view of Mourelatos, who holds that B 1 is 'intrinsically vague,' 1970, pp. 14–16. Coxon, 1986, pp. 160–2, argues against the non-traditional interpretation; Guthrie, 1965, p. 6, n. 1, acknowledges it, but adopts the reading of the tradition. Owens, 1979, reviews extensively the literature against the traditional view, and takes up at some length a defense of the traditional reading that understands the youth to be escorted upwards into the light.

[48] The translation is close to McKirahan's, 1994, of which the rendering of *τὸ πλέον* of the last phrase, *τὸ γὰρ πλέον ἐστὶ νόημα*, as 'the more' is contested by those who think it should be 'the full.' For an account of the questions over the passage and the literature upon it, see Laks, 1990.

may you declare it' (B 2.7–8). Thus Night's association with non-Being is plausible, especially since the goddess calls Night 'hidden' and 'blind,' or 'unknowing.'

Yet this asymmetry in ontology between Light and Night, which is based upon epistemological considerations, remains difficult to sustain when we recall the similarities already noted between Light and Night, which draw them both equally to the side of Being. Neither of them gives the appearance of coming-to-be or of perishing. Together they fill up the whole of the cosmos, and they have 'no share in nothing.' Light is singled out as homogeneous and distinct in character, like the Being revealed by the goddess, and since Light and Night are 'both equal,' Night too would seem to preserve its own integrity as a distinct entity, uniform throughout its nature. Yet it might be countered that it is Light, and not Night, that is singled out for its homogeneity, as what is 'the same as itself in every direction, but not the same as the other,' and thus it is Light that peculiarly draws upon itself a comparison with Being. This special status for Light, however, cannot be steadfastly sustained, and Light has no advantage over Night in their comparison with Being, since Light faces an overwhelming liability as what is rare relative to Night. Light and Night are contrasted as the rare and the dense, and Light as the rare has a larger share of Non-Being than does Night as the dense. For this reason Night should be more closely associated with Being and Light with Non-Being, since Being is 'all full of what is' (B 8.24). Accordingly, the rareness of Light bars it from possessing any privileged affinity with Being. These observations on the different rankings that may be given to Light and Night relative to Being and Non-Being indicate that a confusion underlies Aristotle's ranking, either a confusion of his own making or one inherent in mortal thinking. Mortal thought may be so steeped in confusion that no clear and consistent ranking of Light and Night with either Being or Non-Being may be drawn from it.

But why could not Parmenides take up a position of the sort his successors among the pluralists adopt[49] and introduce Light and Night as primal, eternal entities, each fully real, different and underived from one another, without their being just a denser or more rarefied version of something more fundamental? This is impossible for Parmenides and the goddess as long as they take the word 'being' to be a univocal predicate and to be what expresses the very nature of its subject. Parmenides' successors can conceive of Being as coming in a variety of forms, but not because they take 'being' to be equivocal or believe it to be something other than a qualitative term. On these points they would be in fundamental agreement with Parmenides and the goddess. Plausibly it may be argued that the pluralists who follow Parmenides are in a position to recognize the possibility of a qualitative heterogeneity within an existential homogeneity, because they take 'being' to be more like a generic than a specific term in its descriptive role, and thus they may take Being to be more like a determinable than a determinate in its nature. This would then put them in a position to maintain that Being may come in a variety of different sorts within a single conception of what it is to be.

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[49] For example, Anaxagoras (B 5, B 17); Empedocles (B 17.27–35, B 6, B 8, B 9). On both of them, see Aristotle, *Ph.* I.4, 187a22–b7. It is commonly held that Parmenides' successors presume a plurality without any argument. For example, Malcolm observes this of Empedocles and Anaxagoras, 1991, pp. 92–3, and Curd of the atomists as well, 1991, p. 261, and Curd, 1998, pp. 64–5, 129–31. Curd takes their lack of an argument to indicate that none was needed because Parmenides did not deny a plurality, since he was not a 'numerical monist' who held that a single entity constitutes reality. Curd charges that Parmenides' successors would have been remiss in their philosophical duty if they had presumed a plurality in the face of any argument by Parmenides against it. Yet even if the successors of Parmenides offered no argument for plurality, this need not indicate that Parmenides did not argue against plurality and that his successors in their presumption of plurality were not philosophically responsible. Parmenides' successors may have understood their charge to be the development of a compromise between the demands of his argument and those of common sense, in which the demands of these two extremes must be satisfied as much as possible without any hope that all of them would receive satisfaction.

The pathway to a cosmology of the post-Parmenidean sort is closed to the goddess and her disciple Parmenides. The goddess holds out no hope for any sort of cosmology, and she is in no position to appreciate or to anticipate the pluralism of the successors of Parmenides. The goddess should be taken, then, at her word when she warns that the order of her words on mortal opinions is deceptive. The cosmology of mortals is nothing more than a deception, which deceives by giving the appearance of reality without yielding its substance, and there is no reason to search for something more than mere deception in the deceptive words of the goddess upon the cosmos.

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3

THE PLURALISTS

Chapter 9

Anaxagoras, Plato and Naming of Parts

David Furley

This chapter starts from a number of presuppositions about Anaxagoras and his philosophy. Many of them are questionable, to a greater or lesser extent. I have tried to defend some of them in past publications, but it is not appropriate to argue for all of them now. I shall list them, as clearly as I can, and then get on to the main problem.[1]

1 Anaxagoras wrote his book, of which fragments survive, about 470, after Parmenides, whose work he knew when he wrote the book. If he did not write the book itself, of which we have fragments, at this early date, at least the main lines of his system were probably worked out by this time. He was notoriously said to have *predicted* the fall of the meteorite in 467. The chief aim of his system was to give a rational account of the physical world and its changes that was immune to Parmenides' critique of the concept of genesis.

2 He wrote the book before Zeno came to the support of Parmenides; it is more likely that Zeno knew of Anaxagoras' claim that physical substances are infinitely divisible and aimed to criticize that claim, than that Anaxagoras knew of Zeno's paradoxes about infinite divisibility and just adopted the theory as though it were not paradoxical. Also, Anaxagoras probably wrote or worked out his theory before Empedocles put forward the theory of the genesis of compounds out of four elements. (But neither of these points is greatly significant for my subject.)

3 When Aristotle said (*Cael.* III.3, 302a31) '*τὰ ὁμοιομερῆ στοιχεῖα ⟨λέγει⟩*,' contrasting him with Empedocles, he meant what the Greek would normally be taken to mean: 'he says the homoiomerous bodies are elements,' not 'he says the elements are homoiomerous bodies.' That is to say, Aristotle did not mean that for Anaxagoras a body is elementary if and only if it is homoiomerous; he meant that, as opposed to Empedocles who said that only earth, water, air, and fire are elements, other things being compounded out of these, for Anaxagoras those bodies which Aristotle designated 'homoiomerous' were elements. What Aristotle meant by 'the homoiomerous bodies' is explained in *GC* I.1, 314a17, where he says of Anaxagoras: 'He makes the homoiomerous bodies elements – I mean bone, flesh, marrow, and those others whose parts have the same name as the whole.'

   There is no evidence that Anaxagoras used the word *ὁμοιομερής*. The word *στοιχεῖον* is not found in the fragments either. When Anaxagoras gives a list of the things present in the original mixture he mentions the hot and the cold, the bright and the dark, earth, and seeds infinite in number (fr. 4b). In other fragments when speaking of the mixture of things and the process of separating out the ingredients – a process that is of course never completed, since 'there is a portion of everything in everything' – he mentions the opposites.

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[1] I am very happy to take this opportunity to join in tribute to Alexander Mourelatos, whose work and company I have enjoyed and profited from for about three decades.

The text is adapted from a lecture I gave at a Princeton Symposium. The title (but nothing else) refers to Henry Reed's poem, 'Naming of Parts.'

Some have concluded (Malcolm Schofield, for example)[2] that the opposites are Anaxagoras' true elements, and other things are secondary developments from these. But Aristotle is so emphatic in his insistence that this is a feature that distinguished Anaxagoras from Empedocles – that the latter confined elementary status to earth, water, air, and fire, whereas Anaxagoras gave elementary status to the homoiomerous bodies – that I feel we must make room for this thesis in our account of Anaxagoras unless it proves to be impossible. I cannot see that it is at all impossible. The negative evidence of its absence from the *ipsissima verba* is feeble, because the surviving *ipsissima verba* are so few. Moreover there are good positive reasons for attributing the thesis to Anaxagoras.

4 On the other hand, I welcome Schofield's constant emphasis on the distinction between *substances* and *ingredients*. Indeed this distinction is crucial to my view of Anaxagoras. The last words of B 12 are the basis for the distinction:

> Nothing is totally separated off nor distinguished, the one from the other, except Mind; but Mind is all alike, the greater and the lesser. Nothing else is alike to any <of its ingredients?>, but every single thing is and was whatever it has most of in it.
>
> (There is no unclumsy and accurate English translation for the last clause: the 'whatever' is plural. 'Every single thing is and was those <items> which are most abundantly present in it.')

We know that everything except Mind is a mixture. If we ask the question, 'What is it?' the answer we must give depends on its predominant ingredients. What have we here? A glass of very good wine. But even the best wine is a mixture of all things, if there is a portion of everything in everything. Perhaps it is a very good wine because it has much more of wine in it than of anything else. Its color is good too. It has more red in it than green or yellow or blue.

This is where the point about naming comes in. What does the word 'wine' name? How do we define it? If 'wine' means what I have in my glass, and what you have in your glass, and so on, then 'wine' means whatever has more wine in it than anything else. More *what* in it? More wine, of course. Then what our definition of wine amounts to is this: Wine is that which has in it a predominance of … that which has in it a predominance of … that which has in it a predominance of … *ad infinitum*.

This vacuous regress can be halted only if we concede that 'wine' is the name of the *ingredient* that forms the predominant part of what is in my glass, and what is in my glass takes its name derivatively from that predominant ingredient. Anaxagoras does not explicitly make the point about the name in the extant fragments. What he says, we have already seen: 'every single thing is and was whatever it has most of in it.' But the point about naming turns up in the Derveni papyrus, among other reminiscences of Anaxagoras. In this document, the unknown pre-Platonic author interprets an Orphic cosmogony. In column 15, he says:

> Since every one of the things that exist derives its name from what is predominant (*τὰ ἐόντα ἕν ἕκαστον κέκληται ἀπὸ τοῦ ἐπικρατοῦντος*), the whole <cosmos?>, according to the same principle, was called 'Zeus.' For over everything, air reigned, as much as it wished.

The language is echoed in Theophrastus' account of Anaxagoras, as quoted by Simplicius *in Ph.* 27.7: 'each thing being characterized according to what is predominant' (*ἑκάστου δὲ κατὰ τὸ ἐπικρατοῦν χαρακτηριζομένου*).

5 I take it that in Anaxagoras' theory the mixture was always to be thought of as a smooth

[2] Schofield, 1980.

mixture: there are no particles. (The standard illustration in the commentators is a mixture of liquids.) However small a portion of the mixture we take, the ingredients remain inseparable. The mixture is never reduced to earth, water, air, and fire, nor to the hot and cold and wet and dry, nor to atoms. There is no limit to divisibility.

6 There is an unending debate about the range of things contained in Anaxagoras' primitive mixture and therefore in his continuing natural world. I have already claimed that the opposites do not exhaust the list of truly elemental things, but there is plenty of evidence that they were included in the list, being thought of not as properties but as stuffs – the hot, the cold, and so on. The four Empedoclean elements earth, water, air, and fire appear to be in the list of primitive things: air is mentioned in B 1, earth in B 4; Aristotle (*Cael.* III.3 302a28) appears to say they are derivative, but I think that is either a misinterpretation of what Aristotle says or his mistake. I may be alone in thinking that the primitive mixture, and therefore everything, also contained such stuffs as the seeds of plants and animals. There is a difficult problem as to whether Anaxagoras allowed for any kind of layering in his ontology at all: that is to say, it remains obscure what he took to be the relation between the sperm of an animal and the flesh, blood, and bone that it must contain, or between the flesh, blood, and bone, and their color, texture, and other properties. In other words, if his world is not divided into elements and compounds, then how are we to understand the relation between a whole and its parts? But that is a problem I must pass over now.

7 When we divide a substance into smaller bits, although every bit contains everything, it does not necessarily contain all the ingredients in the same proportions. That is why the theory serves to explain physical *change*. 'How could hair come into being from what is not hair, or flesh from what is not flesh?' (B 10). But we do not have to believe that hair comes into being from what is not hair: it comes into being (in a sense) when the food we eat, now called, say, 'rice' because rice is what is predominant in it, is broken up into parts in which the predominant ingredient varies. All parts contain everything: a few of the parts contain a predominance of the ingredient 'hair.' So Parmenides is foiled. There *is* physical change, but it is a matter of re-sorting the ingredients, not a coming into being out of 'what is not.'

Anaxagoras' mixtures are not necessarily or normally homoiomerous, in Aristotle's sense of that word. All parts of the mixture contain all the same ingredients, but not necessarily in the same proportions. Since it is the proportions of the ingredients that determine the name of any part of the mixture, it follows that the parts of the mixture are not necessarily synonymous either with the whole mixture or with each other. And that was Aristotle's definition of 'homoiomerous.'

Of course, an Anaxagorean mixture *may* be homoiomerous in Aristotle's sense. We can divide the contents of a bottle of wine into several glasses of wine, and each glass into several sips of wine. But it is essential to his metaphysics that mixtures may be divided in a non-homoiomerous way, to allow for physical change. The principle of homoiomereity plays no part in his system.

I turn now to the subject on which I want to focus particularly: namely, the relation between substances and ingredients, and more especially between substances and the ingredients which predominate in them and after which they are named.

The first point to note is that the ordinary substances of the perceptible world get their names derivatively. The names we use to refer to the substances of the perceptible world belong properly to the ingredients that predominate. Ordinary substances are mixtures. The ingredients are themselves pure and unmixed, but they never exist in the physical world in the pure, unmixed state. This we know from the text: 'all things were together' before the cosmos was formed (B 1), and 'as was the case in the beginning, so now all things are together' (B 6).

It follows that we have no direct access by means of the senses to the ultimate ingredients of the world. No doubt we can sort things into classes according to their general resemblances: this is wine, this is water; this is hot, this is cold. We shall then be sorting things according to the ingredients that predominate in them. But the senses cannot tell us just what 'hot' is, or just what 'water' is. Whatever we encounter in the field of the senses is a mixture. We could sort things, and give names to them, but without knowing what they really are. We should be in the position of the mortals in Parmenides B 8.51–5:

> From now on (says Parmenides) learn the beliefs of mortals, listening to the deceptive ordering of my words; for they decided to name two forms, not one of which is right to name, and in this they went astray. And they separated opposite forms and set signs upon them, apart from one another …

They separated them, in Anaxagorean terms, according to their predominant sensible characters: on one side, the etherial flame of fire (as Parmenides says), gentle and very light, on the other side, obscure night, dense in body and heavy.

Anaxagoras insists that there *are* opposites, and other pluralities, and mortals are not wrong to name them and to distinguish them from each other. But if the senses cannot observe things in their pure state, unsullied by mixture with others, how can it be done?

At this point we need to refer to some ambiguous and difficult remarks in B 12, about Nous:

> For it is the finest of all things and the purest, yes, and *it has all knowledge about everything* and has the greatest strength. Yes, and everything that has psyche, both the greater and the lesser – Mind has power over all of them.[3] And Mind had power over the whole circular motion, so that it moved in a circle in the first place. And first it began to move from a small beginning, and it moves more, and will move more in the future. And the things being mixed together and separated off and distinguished, *Mind knew them all.*

We are very familiar with Mind as a moving force in Anaxagorean cosmology. Mind starts off the cosmogonic whirl, and Plato in the *Phaedo* congratulates him on that idea, but then notoriously complains that Mind thereafter becomes jobless. It is not so often observed that Anaxagoras gives Mind some kind of cognitive role also, in the fragment I have quoted: 'It has all knowledge about everything' (*γνώμην γε περὶ παντὸς πᾶσαν ἴσχει* – note the present tense) and 'the things being mingled together and being separated and being distinguished – Mind knew all of them (*πάντα ἔγνω νοῦς*).'

One recent commentator who is sensitive to the all-important distinction between substances and ingredients (though he does not use those names), and to the consequence that we have no direct access through the senses with the ultimate ingredients of the physical world, is Jonathan Barnes.[4] It is worth quoting him, since he puts the problem clearly and wittily:

> Dig up a spadeful of stuff from your back garden: you can be sure that it will not be a spade of any pure stuff; it will contain countless impurities of every sort. But you are, for all that, warranted in calling it earth; and you may properly surmise that it contains a predominant proportion of earth – which accounts for its earthy aspect.

Here the charge of incoherence shows its teeth:

> How can you know that the dominant stuff in your spadeful is earth? How can you even speak sensibly of 'earth'? It will not do to define earth by […] saying that *a* is earth if and only if *a* is a lump of stuff in which earth predominates. Such a definition is vainly circular. And if we evade the circle by

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[3] 'Yes, and …' is my attempt to render the tone of '*καὶ … γε*' (updating Liddell and Scott's 'ay, and').

[4] Jonathan Barnes, 1979, p. 26.

> putting subscripts to the term 'earth' – '*a* is $earth_1$ if and only if *a* is a lump of stuff in which $earth_2$ predominates' – then '$earth_2$' remains unexplained. If $earth_2$ is elemental, it cannot be explained in terms of any components; and since […] $earth_2$ is never present in the world, we cannot learn the meaning of $earth_2$ by 'ostensive definition.' In short, 'earth,' or '$earth_2$' if you prefer, is a bogus term: it has no use in science.

Barnes himself suggests that the epistemological problem can be solved more or less satisfactorily by some process of progressive approximation. But Anaxagoras, I think, suggests a different kind of solution in the words I have quoted about Mind. Admittedly it is the merest suggestion. It is simply that the pure ingredients of the physical world are known by the cosmic Mind, which is also (again, nothing more than a hint) 'in control of whatever things have psyche, both the greater and the lesser' (B 12 again). 'There are some things in which Mind is present' (B 11). I suppose he means human beings.

Simplicius gets the point nearly right, using his Neoplatonist terms, in his introduction to what Diels calls B 4 (but the introduction itself, Simplicius *in Ph.* 34.18ff., is not printed in Diels-Kranz). We have a threefold differentiation of the forms in Anaxagoras, he says. There is first the stage when they are combined in the 'intelligible unification' (*νοητὴ ἕνωσις*). Second, there is a distinction of the forms according to an 'intelligible distinction' (*νοερὰ διάκρισις*), to which the third distinction, here on earth, 'has been made like' (*ἀφομοίωται*). That is to say: in the primitive mixture, things cannot be discerned by the senses but only by Mind; as things are 'separated out' by the rotation, the pure ingredients can be comprehended by the mind, and the things 'here on earth' are *like* them, in the sense that they can be distinguished by the pure things that predominate in them.

But the fragments of Anaxagoras tell us virtually nothing that will help to solve the epistemological problem of how we are able to identify the objects of the sensible world as being worthy to take the name of a predominant ingredient that we cannot identify with the senses.

The famous slogan attributed to him by Sextus (*M* 7.140 = B 21A): 'Vision of things non-evident: the phenomena' (*ὄψις τῶν ἀδήλων τὰ φαινόμενα*), if it is by Anaxagoras, may perhaps be concerned with what the Epicureans called *τὰ ἄδηλα* – especially what goes on in the heavens – and may be an invitation to argue about them by analogy with things on earth. But it may be taken as some confirmation of Barnes' line of thought: that the way we get to a notion of pure ingredients is by some kind of progressive sorting and classification of the objects of sensible experience.

But if I am right to make the most of the two remarks in B 12 concerning the knowledge possessed by Mind, then the ultimate form of acquaintance with the pure ingredients of the physical world must be some kind of *noesis*. It belongs to the cosmic Mind, but presumably is shared by those things in the physical world which have a share of Nous. For all we know from the fragments, it might be innate, it might be attained by induction, or it might be somehow recollected.

What I am leading up to will be obvious by now: there is a striking similarity of structure between the ontology of Anaxagoras and that of Plato in his middle period. To put it crudely first of all, when we predicate something of a physical object, the primary bearer of the predicated name is, for Anaxagoras, the pure ingredient, a predominance of which is mixed into the object; for Plato, it is the Form. As we are accustomed to put it in articles on Plato, if *X* is *F*, it is because *X* has a share of the *F*-itself. Anaxagoras himself used the verb that Plato uses (*μετέχειν*) in B 6: 'all things have a share of everything' (*πάντα παντὸς μοῖραν μετέχει*), and again in a similar phrase in B 12.

Nothing that comes to be out of the primitive mixture of all things is pure, 'by itself' (*ἐφὠ ἑαυτοῦ, χωρίς*, B 6), because 'in everything there is a portion of everything (except of Mind).' In Plato, we have abundant testimony to the imperfection of sensible objects as compared with

the Forms.[5] On the interpretation of the 'imperfection,' Anaxagoras and Plato may indeed not agree, but both could accept the term.

Both the ingredients of perceptible objects in Anaxagoras' world, and Plato's Forms, are *νοητά*.

In this context I want to turn attention to the passage of the *Phaedo* that follows after Socrates' mention and criticism of Anaxagoras in his autobiographical speech. After renouncing the kind of materialistic *aitiai* that he found in Anaxagoras, and turning to *logoi* instead in his search for *aitiai*, Socrates gives the bare bones of the theory of Forms:

> I'll go back to those much harped-on entities, and start from them, hypothesizing that a beautiful, itself by itself, is something, and so are a good and a large and all the rest …
> It seems to me that if anything else is beautiful besides the beautiful itself, it is beautiful for no other reason than that it participates in that beautiful, and the same goes for all of them. (100b-c. Translation from Gallop)

He goes on to problematic cases where the same subject has contradictory predicates:

> When these points had been granted him (says Phaedo) and it was agreed that each of the Forms *was* something, and that the other things partaking in them took the name of the forms themselves, he next asked: 'If you say that that is so, then whenever you say that Simmias is larger than Socrates but smaller than Phaedo, you mean then, don't you, that both things are in Simmias, largeness and smallness?' (102b)

Notice that we have moved on now from the simple but ambiguous phrases of the earlier statement about the much-harped on entities, such as the beautiful, and the objects that have a share in or participate in them, to the share itself, to the portion (*μοῖρα*) as Anaxagoras would presumably call it, that objects have in them. What is their status?

> It seems to me (says Socrates) that not only is largeness itself never willing to be large and small at the same time, but also that the largeness in us never admits the small, nor is it willing to be overtopped. Rather, one of two things must happen: either it must retreat and get out of the way (*φεύγειν καὶ ὑπεκχωρεῖν*) when its opposite, the small, advances towards it; or else, upon that opposite's advance, it must perish (*ἀπολωλέναι*). (102d).

So the 'largeness in us' has one of the same characters as 'the large itself' in that it will not admit its opposite, it must remain pure. There is a sort of generalization of the point when Socrates helps out one of the company who complains that they had earlier agreed that opposites come into being out of their opposites.

> It was said then, says Socrates, that one opposite *thing* comes to be from another opposite *thing*: what we are saying now is that the opposite *itself* could never come to be opposite to itself, whether it be the opposite in us or the opposite in nature (*οὔτε τὸ ἐν ἡμῖν οὔτε τὸ ἐν τῇ φύσει*). Then, my friend, we were talking about things that *have* opposites, calling them by the names they take from them; whereas now we're talking about the opposites themselves, from whose presence in them the things so called derive their names. (103b)

We have a three-layered ontology: the Form, the character (as it is now called traditionally) and the object characterized. The character drops out of sight in later dialogues, but it is in no way mysterious if we look for its forebears in the theory of Anaxagoras.

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[5] This is handily summarized in Nehamas, 1975, p. 105, quoting R. 477–9, 597, *Phd.* 74d, 75a-b, *Smp.* 210e–212a, and more.

The character – that which is *in us* or in any physical object, is the descendant of the *moira* of everything that exists in every Anaxagorean thing. Plato has no need to claim that there is a share of every Form in every object, because his explanation of genesis is different from Anaxagoras'. But he does need to claim that the character is pure; it will not admit its opposite. It is Socrates who is both large and small; it cannot be the large that is also small, without ruining the language: if the word 'large' also designates what is small, we no longer know what it means. (I suggest that this is part of what Plato means when he says (99d) that Socrates determined to turn away from studying *onta* to studying *logoi*. We have to consider what is entailed if we are to be able to use words meaningfully.)

The true bearer of names for Anaxagoras is the cosmic stock of each of the ingredients that give a license for the use of their name to the objects in which they predominate. The portion of the ingredient contained in the object that thus gets its name is itself as pure and true to its name as can be. For Plato, the true bearer of the name is the Form.

Anaxagoras' theory was under the constraints of Parmenides' ban on coming to be out of what is not. To explain physical change he had to accept that for any *X* that comes to be out of *Y*, there must be some *X* in the *Y* before the change. Plato was not in the end under the same constraint, because the Form provided for him the real being and the true bearer of the name, and physical change was interpreted in more flexible and subtle ways than by the presence or absence of ingredients. At first, in our passage of the *Phaedo*, participation in a Form was construed in very much the same way as Anaxagoras had it: the physical object had a 'portion' of the property whose name properly belonged to the Form. When the physical object changed and lost that property, the portion either 'withdrew' or 'perished.' Later in Plato's development, 'participation' became a metaphor, and it was often replaced by the language of 'copies' and 'paradigm.'

At the same time as Plato adopted a part of Anaxagoras' theory, he saw some of its inadequacies. Something had to be done to explain the right of the same object to have contradictory predicates. It is interesting that Plato chooses as his example the large and the small – an example that makes Anaxagoras' theory look ridiculous. When something large becomes small, in Anaxagorean terms we have to say that its portion of the large has been overtopped by its portion of the small: the small now predominates over the large. Plato says that in this case the large must either 'retreat and get out of the way' (a metaphor that Anaxagoras could live with, I suppose: the portion of 'large' would be overwhelmed by the portion of its opposite), or else it must perish. Anaxagoras could not accept the latter alternative without giving up his defense against Parmenides, which depended on 'a portion of everything in everything.' This language is not very satisfactory for Plato, either: if we think of Simmias standing between the bigger Phaedo and the smaller Socrates, when we think of the left hand pair, we have to believe that Simmias' largeness gets out of the way or is destroyed, and when we think of the right hand pair, his smallness suffers the same fate.

The language gets still more complicated when Plato goes on to describe his less simple *aitia*. We are now to think not of the opposite characters themselves, but of physical things that have these characters essentially. Fire is hot: it cannot bear the cold, and so it withdraws or perishes, taking its character with it. Any two or four or six is even: it cannot become odd, without ceasing to be a two or four or six and taking its evenness with it. So a physical object, now hot, becomes cold when the fire in it withdraws or perishes, taking its essential character 'the hot' with it, and so allowing the entrance of the cold without contaminating its portion of the hot.

This additional complexity, so far as I can see, is introduced by Plato solely in order to make way for an entity with a unique character – the soul. It is unique in that it is not a Form but an individual in the changing physical world, but it is an individual that escapes the changeability of the physical world. Soul has an opposite character, life, such that when its opposite, death, approaches, it cannot perish, like other opposites, but only 'withdraw.' It would have been

simpler if Plato had adopted Anaxagoras' treatment of Mind, and just made it different from the other ingredients of the physical world.

That seems to me quite unclear. But one or two problems in the *Phaedo* are cleared up, I think, if its reminiscences of Anaxagoras are accepted. The status of the so-called 'characters' (*τὸ ἐν ἡμῖν* as opposed to *τὸ ἐν τῇ φύσει*) is understandable. They must be 'pure,' and unmixed with their opposites, they must bear the same name as the Form *ἐν τῇ φύσει*, and confer the right to be called by that name to the physical object that contains them. They must 'yield' in some way to their opposites if the properties of physical objects are to change between opposites.

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Chapter 10

Reading the Readings: On the First Person Plurals in the Strasburg Empedocles[1]

André Laks

Without making clear what one understands by 'origins' – and several legitimate answers can be given to this question – it might be difficult to answer the question about the origins of Greek philosophy. But one of the least debatable beginnings is to be found in the series of distinctive cosmologies that develop in Miletus at the beginning of the sixth century BC. These cosmologies exhibit two features in comparison with the cosmo-theogonies from which they distance themselves, but of which they are the heirs and undoubtedly still bear traces:[2] a secularization of the actors in the story, who are no longer the traditional gods of the pantheon, and a considerable impoverishment of the content, which tends to exclude the entire practical (moral, social, political) dimension that was on the agenda of ancient cosmogonies, for the purpose of focusing on the world alone and on the 'things' of which it is composed. 'Nature' is the traditional term, both ancient and modern, used to classify this new domain. It has its own complexities, but when Socrates later claims to have reintroduced an interest in human affairs, thus paradoxically reestablishing a link with 'myth,' which the 'philosophers of nature' had set aside, he certainly captures a dominant tendency in their undertakings.

Some Presocratic philosophers, however, did not wait for Socrates to raise questions about man, at any rate in the sense of a practical being (most of them must have spoken of man in the sense of one animal species among others). That is particularly the case with Empedocles, who, from all that we can tell, tried to develop both a physical discourse and a practical discourse, a theory of the world and a theory of behavior.

What form did this duality take? The simplest hypothesis derives from the existence, reasonably well attested in antiquity, of two distinct poems, a 'physical' poem and an 'ethical-religious' poem (the *Purifications*). The physical poem would have elaborated a cosmological narrative, whereas the *Purifications*, backed by a framework story about the fate of fallen 'divinities' (*daimones*), would have called for the creation of a social order not based on animal sacrifice. But nothing is fundamentally altered if we suppose that both discussions were parts (or, for that matter, were *also* parts) of a single poem – for example, in the form of an 'ethical-religious'

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[1] I am delighted to dedicate these French Presocratic scraps, as a token of my gratitude, to Alex Mourelatos, reader of Parmenides, and a wonderful host.

Many thanks to William L. McBride, Patricia Curd, and Victor Caston for help with the translation of the chapter, which was first presented in French at a colloquium organized under the auspices of the Greek delegation to UNESCO in Paris (26–27 May 2000). I only later became aware of Osborne's 2000 article (notably pp. 344–52, 'The mysterious "we" '), with which I agree on several points. It is inevitable, during this period of assessment of the new papyrological material and its critical edition by Martin/Primavesi, that arguments will intersect. David Sedley has shown me a forthcoming paper that bears on matters discussed here and also sent helpful written comments on a previous draft of these remarks. Warm thanks to him too.

[2] See W. Burkert, 1994/95.

proem that would then have been followed by the 'physics.'[3] What is important is that the dividing line between a theoretical discourse about the world and a practical discourse about the ends of man would have been drawn in one way or another, something that need not have been done conceptually.

Do the papyrological fragments published in A. Martin and O. Primavesi, 1999, help settle the question? One of the prominent features of the new material lies in the fact that, alongside the 'things' or elements that are the components of the 'world,' room is now made for a certain 'we' as a participant in the physical process, a 'we' that is not mentioned, in this role, in the fragments stemming from the indirect tradition. What is at stake is the identification of the referent of this first person plural. The issue is all the more interesting because it is inextricably linked with the existence of two competing textual traditions, reflected, at least in some of the instances, in the neuter plural participle ('the things') that the papyrus offers as an alternative reading to the verb in the first person plural ('we'). The editors of the papyrus endorse the hypothesis that the use of the personal pronoun is intelligible only if its referent is taken to be the 'divinities' that Empedocles taught that 'we' *are*. This is not, however, the only possible option, nor even the most probable. The following remarks aim at showing why.[4]

1 The Material Evidence

On four occasions – in order of appearance (by the editors' numbering system), ai6, aii17, c3, and d8 – the first hand of the papyrus gives a verb in the first person plural in a context where it would not be expected. The subject is a 'we,' the nature of which is not specified. In the first three cases, the verb occurs together with the mention of a process of unification, which takes place at a cosmic level (along the lines of 'we unite in order to become one'). The point of the final occurrence is less clear and could either refer to the same process, or to separation, or be of a more general nature. Here are the four verses, as edited by Martin/Primavesi, 1999:

ai6: ⌊ἀλλ' ἐν μὲν Φιλότητι⌋ συνερχό]μεθ' εἰς ἕνα κόσμον
aii17: [αὐθάδη·⌋] μεσάτους τ' [εἰση]ρχόμεθ' ἕν μ[όνον εἶναι]
c3: ⌊ἄλλοτε μὲν Φιλότητι συν⌋ερχόμεθ' εἰς ἓν ἅπαντα⌋
d8: [ἐξικ]νούμε[θα γὰ]ρ πολυβενθ[έα Δῖνον⌋], ὀΐω

In two of these passages (ai6, c3), the papyrus offers a supralinear *varia lectio*, *nu* vs. *theta*, which replaces the conjugated verb with a neuter plural participle, referring to things in general. In the other two cases, no correction is to be found: in aii17, because over the *theta* of the ending, which is readable, no other reading is superimposed; in d8, because the verb form is incomplete, so that, even if the papyrus did have an interlinear addition at this point, it can no longer be read.

Three of these lines (ai6, aii17, and d8) are new. One of them, however, finds a close parallel in a fragment known through Simplicius in his commentary on Aristotle's *Physics* (ai6 DK B 26.5 = 68 Bollack).[5] As for the fourth line (c3), it is part of a fragment previously known, also from Simplicius (DK B 20.2 = 60 Bollack). In both cases, the Simplicius manuscripts contain the neuter plural in the relevant line, thus corresponding to the *varia lectio* of the papyrus.

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[3] This is the line of interpretation followed by van der Ben, 1975 and Sedley, 1989 (a revised version of which constitutes Chapter 1 of Sedley, 1998).

[4] I am thus continuing the critical work initiated in Laks, 1999, which challenges the idea that the new fragments support the hypothesis of a double cosmogony.

[5] It is known that Empedocles readily resorts to variation in order to shape his narrative.

These four cases are similar, in the sense that the 'we' is generic, referring to a certain entity that is out in the world, a 'we-object' so to speak, and that plays a certain role within Empedocles' narrative, whatever this may be. In this respect, they differ from a fifth case of first person plural (d10), which concerns a 'we-subject,' that is, the author of the account himself. Here too, the papyrus offers an alternative between a *theta* written by the first hand and an interlinear *nu*. But the variation has a different meaning. The choice offered is not one between the first person plural pronoun and a neuter participle, but between two forms of the first person plural, active and middle. I shall begin with this last case, which is in a sense marginal, but instructive. For it shows that the *nu*/*theta* variation is not limited to a single semantic configuration, and hence illustrates the principle of the polyvalence of the first person plural, which may serve to guide the reading of other passages.

2 (d10), or the 'poetic we'

Line d10 occurs at the end of a discussion about death and decomposition and serves as a transition to another episode, beginning at d11. The relationship between the two bits, and their place in the course of the narrative, is an open question, but it can be left aside here.[6]

The first hand provides, as the second part of the line (the first letters are missing), ἡ]μεῖς δὲ λόγων ἐπιβ[ησό]μεθ' αὖθις/[κείνων.[7] The correcting hand, for his part, replaces the future middle voice ἐπιβησόμεθα with the future active ἐπιβήσομεν. The editors retain this latter form, on the principle of *lectio difficilior*: because the active future is less usual than the middle, a substitution of the middle for the active in the course of the transmission would be easier to explain than the reverse. But the active, which is causal-transitive, presupposes a complement in the accusative case, which is lacking in the text. Hence the addition of a *sigma* (σ) the loss of which can easily be explained by haplography in front of an *epsilon* (ε):[8] ἡ]μεῖς δὲ λόγων ‹σ'› ἐπι[βησόμ]εν' αὖθις/[κείνων. It is worth noting that this choice is reinforced, according to the editors, by the 'authority' indirectly conferred on the active form by the two dots that appear on either side of the supralinear *nu* – an indication, the editors insist, that this reading is derived from a collation with another manuscript and ought to be considered as a genuine 'variant.'[9] This argument is not especially convincing: *altera, non melior* might be a principle worthy of

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[6] Three possibilities are currently discussed: (1) the editors now believe that (d) is linked with DK B 62 = 510 Bollack (φλογμός, d11, taking up πῦρ, B62.6), and comes from the second book of the physical poem; (2) C. Osborne maintains the hypothesis that the editors defended before publication, namely, that (d), which should be located immediately after the first three fragments (a, b, and c), marks a return to the thread of the cosmogonic narrative that begins with what follows DK B 17 = 31 Bollack (see Osborne, 2000, pp. 335 ff.); (3) D. Sedley suggests (in his forthcoming paper; cf. Osborne, 2000, p. 336 n. 9) that αὖθις in d10, with the future tense, is forward-looking rather than backward-looking ('we shall tackle these questions later'). This is a very attractive idea. But should we assign fragment (d) to the proem of the physical poem, as Sedley believes? What is left at the end of fragment (d) does not seem to me to favor this hypothesis. Is not Empedocles rather saying – retaining Martin/Primavesi's restoration of κείνων at the beginning of d11 with a different reference, or else τούτων, rather than ἄλλων, which is suggested by Sedley – that he will come back to the topic of inflicting death and man's resulting misery? In this case, might we not have an announcment of another poem, for instance, the *Purifications*? (This would give weight to the hypothesis that d5–6 and DK B 139 came in two different versions in Empedocles' work, see below, §6). On such a hypothesis, the position of (d) within the poem would be compatible with either (1) or (2), the latter hypothesis being the one I favor.

[7] On Martin/Primavesi's restoration of κείνων at the beginning of d11 see n. 6 above. They take d10 as resuming a former episode in the cosmic narrative, at the end of a digression.

[8] Martin/Primavesi, 1999, pp. 309 f.

[9] Martin/Primavesi, 1999, pp. 23 f.

consideration here. But the editors tend to assign it more weight inasmuch as the authority of the other two occurrences of an interlinear *nu* in ai6 and c3, which happen not to be placed between dots, is thereby weakened to the benefit of the first hand's *theta*, which they wish to retain.

The editors discuss the text and the grammar, not the meaning of the line. Semantic considerations, however, seem clearly to favor the middle voice.[10] The alleged parallel from Hesiod's *Works*, 659, ἔνθα με τὸ πρῶτον λιγυρῆς ἐπέβησαν ἀοιδῆς constitutes perhaps the strongest argument against the editors' choice. The Muses, subject of ἐπέβησαν, take Hesiod (με) 'on board the poem,' which metaphorically means that they *inspire* him with it. This is not the relation that holds between Empedocles and his disciple. It seems much better, with the middle voice, to have Empedocles himself saying something about his own poetic intentions, for example, as announcing a discussion still to come: 'But later we shall embark on these arguments.' If it refers to a further section within the same poem (see n. 6 above), the use of this first person plural might be more than an emphatic 'royal we,' and include the present addressee.

3 The Other Occurrences

The editors hold that the four other occurrences of the first person plural are best accounted for if one assumes that the narrative about the tribulations of the fallen 'divinities,' traditionally regarded as belonging to the *Purifications*, is in fact presupposed by the physical poem, in which they would be actors in their own right, under the guise of the 'we.' Given that the cosmic narrative begins on the 247th line of the physical poem (DK B 17.16 = 31 Bollack) – something we now know thanks to the stichometric mark that appears in the margin of line 300 – the editors also suggest that the story of the divinities' fall was told in the proem of the poem, along the lines of van der Ben's (1975) and Sedley's (1998) interpretation. This view is further supported by the presence in fragment (d) of two lines (or of one version of two lines) that have traditionally been assigned to the *Purifications* since Stein's edition (see *supra*, n. 6 and below, §6).

I cannot deal with all of these issues here. What I wish to emphasize is that this line of interpretation ultimately relies on the interpretation of a single verse, namely aii17, from which the editors draw conclusions about the referent of the first person plural ('the divinities') in the three other occurrences. Now, given the state of the text here, the reconstruction and interpretation of aii17 are highly precarious. If, on the other hand, we retain the first person plurals in the other passages (as I am inclined to do, with the editors), they are perfectly intelligible without reference to the fallen 'divinities' narrative. The natural procedure, then, would be to interpret the occurrence of the first person plural in aii17 based on the other cases, rather than the other way round.

4 (ai6), or the 'expanded we'

Here, ai6 = 267 is the first in a series of new lines (consisting of fragments ai and aii) that now complete fragment DK B 17 = 31 Bollack. The context is therefore known. The totality composed of 17+ai+aii (corresponding to lines 233–300 of the physical poem) forms a unity, whose structure can be delineated (despite some uncertainty, due to the gaps in the papyrus, about the exact function of the development that begins at 273).[11] After a programmatic

[10] See also Osborne, 2000, pp. 347 and 349, as well as Sedley, forthcoming.

[11] See Laks, 1999, p. 18 and below, n. 29.

announcement (233–44), the address to the disciple in 245 (= DK B 17.1: *ἀλλ' ἄγε μύθων κλῦθι …*) is resumed. It is intensified beginning at 291 (*Σπεῦ]δε δ' ὅπως μὴ μοῦνον ἀν' οὔατα [μῦθος ἵκηται*]), with the substitution of hearing (of the poem) for sight (of the world) as the source of the disciple's understanding.[12] The circular composition reinforces the cohesiveness of the intervening narrative, which, beyond the programmatic statements recalled at the beginning of the fragment ('as I have already said,' 246), attempts to provide a concrete configuration of the principles of cosmic becoming.

Lines 239 f. (= DK B 17.7 f.) state, in abstract form, how Love and Strife exercise power in turn, alternately unifying and separating the elements.

239 f. = DK B 17.7 f.
ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἓν ἅπαντα
ἄλλοτε δ' αὖ δίχ' ἕκαστα φορεύμενα Νείκεος ἔχθει

Lines 267 f. are the first specification of this principle of alternation.

In 267, the first hand has written *μεθεισενεκοσμον*, that is, *μεθ' εἰς ενε κόσμον* and corrected *ε* to *α*. Another hand, which is not that of the first scribe, has replaced the *theta* with a supralinear *nu*. The first change (*εἰς ἕνα κόσμον*) corrects an obvious mistake. The second is another matter, for the reading of the first hand makes sense: *συνερχό]μεθ' εἰς ἕνα κόσμον* ('we unite together to form a single ordered whole,' Martin/Primavesi). On the other hand, the *varia lectio* is no less plausible at first glance, all the more so because the parallel line in fragment DK B 26.5 = 68 Bollack (which at lines 5–6 offers what would probably have been the third assertion of the principle of alternation) provides in the second hemistich, according to Simplicius' manuscripts, the participial form that corresponds to the interlinear correction in 267:

DK B 26.5–7
ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἕνα κόσμον
ἄλλοτε δ' αὖ δίχ' ἕκαστα φορούμενα Νείκεος ἔχθει
εἰσόκεν ἓν συμφύντα τὸ πᾶν ὑπένερθε γένηται.

At 267, the editors opt for the first person plural, instead of what they regard as a semantically and syntactically reckless attempt to achieve analogical homogeneity.[13] With a conjugated verb, though, one has to use strong punctuation at the end of 266 and insert an adequate connective at the opening of 267 – in this case, *ἀλλά*: *ἀλλ' ἐν μὲν Φιλότητι συνερχό]μεθ' εἰς ἕνα κόσμον*. The editors do not consider, for verse 268, the possibility of a second verb in the first person plural, but suggest *διέφυ*: [*ἐν δ' Ἔχθρηι γε πάλιν διέφυ? πλέ]ον' ἐξ ἑνὸς εἶναι*. At the Paris Colloquium, O. Primavesi orally communicated that he no longer believes the subject of this singular verb is *εἷς κόσμος* (derived from the previous verse) as the edition has it. The subject should rather be derived from the following relative (*ἐξ ὧν*), which is certainly better. The corresponding translation of lines 265–8 would thus be:

> Rather, just these things are, running only through one another: they become different things at different times, and yet these are throughout always similar. But under Love we unite together to form a single ordered whole, whereas under Hatred in turn, they grow apart once again, so as to be many out of one, the things from which …. [*instead of*: … whereas under Hatred, in turn, it [that is, the ordered whole] grew apart, so as to be many out of one …]

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[12] Cf. *Τὴν σύ νόωι δέρκευ*, 252, setting in motion a 'digression' about Love. The supplement *μῦθος ἵκηται* 291 makes sense. One should note that the picture that is presented as the direct object of sight is no less the object of hearing, since it is pictured in the poem. On 'seeing Strife,' see Bollack, 2001.

[13] See p. 94. This applies also to c3, see below §5.

The translation raises several difficulties.[14] What is important is that the acceptance of *συνερχόμενα* would imply a different type of reconstruction for the beginning of the line, the model for which would have to be sought in fragment DK B 26.5 = 68 Bollack, *ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἕνα κόσμον*. The participle, in this case, would refer to the preceding *ταῦτα* (DK B 26.4: *γίγνεται ἄλλοτε ἄλλα καὶ ἠνεκὲς αἰὲν ὁμοῖα*), which also occurs in line 265. The problem then is how to reconstruct 268, which ends with a simple infinitival construction (*πλέ]ον' ἐξ ἑνὸς εἶναι*), by contrast with DK B 26.6, which consists of a second participle in apposition (*ἄλλοτε δ' αὖ δίχ' ἕκαστα φορούμενα Νείκεος ἔχθει*). Might the infinitive in the papyrus also be dependent on a second participle, parallel to *συνερχόμενα*, which would have been located in the lacuna? What speaks against this is that, in lines 247, 287, and 290, the recurring group *πλέον' ἐξ ἑνὸς εἶναι* depends on a conjugated verb. Metrical requirements, moreover, do not seem to allow the insertion of a participle with the meaning called for ('at some other time *they are separated* …').[15]

We are led, then, for both grammatical and prosodic reasons, to adopt the text of the first hand. This implies – in addition to the asymmetry between the first person plural in 267 and the third person in 268, which is acceptable – that the supralinear correction (*συνερχόμενα*) should be considered, if not purely mechanical (since it reflects the question of the relationship 'we' maintain with 'things'), then at least syntactically irresponsible (since the construction cannot be justified).[16]

But what is the referent and the meaning of this 'we'? If the appearance of the first person might cause some surprise – indeed, if we agree the reading is correct, it may already have surprised the revisor who placed a *nu* above the *theta* – that is because nothing in the immediate context (which is broad enough) *calls* for it. Up to this point, reference has only been made from an objective perspective to 'things' and their elementary constituents. Wouldn't Empedocles have to have previously identified this 'we' (with the 'divinities,' on the hypothesis under consideration), if the addressee or reader is to have understood what he was talking about? Now, apart from the fact that we would still have to ask why Empedocles would have introduced a reminder of our divine nature at this point, it is doubtful whether the 'surprise' occasioned by the first person plural requires such a weighty explanation in the first place. 'We' does not necessarily signify 'we men' as opposed to 'they, the things.' It could also mean 'we, like all the rest,' that is, insofar as we are part of things: on this interpretation, we are *representative* of all that exists and constitutes the world. It is this 'we' that I call 'expanded.' This does not mean, of course, that the choice of the first person amounts to a simple stylistic variation. Rather, it marks the point at which Empedocles introduced us (us men), as also being at issue in the antagonistic play of the forces of Love and Strife. *De te fabula narratur.*[17]

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[14] I do not find the decision in favor of *γε*, in verse 265 = DK B 17.34, instead of the *δέ* found in the indirect tradition, is convincing. The point has some importance for addressing the relative merits of the two traditions.

[15] The schema would then be: *ἄλλοτε δ' αὖ Νείκει*, a long syllable followed by *α*, *πλέον' ἐξ ἑνὸς εἶναι*. (*‹φύντ›α* seems too weak, and to have too positive a meaning.)

[16] Concerning this hypothesis, the editors take comfort in the fact that the correction is not dotted. On this point, see above, p. 130.

[17] Burnyeat, 1999, p. 8, takes the same line ('the cosmic cycle is *our* story'), although he is wrong, I think, to claim that this is because 'in at least one place [presumably the one under consideration, A. L.] 'we' refers to the four elements.'

5 (c3), or the 'specifying we'

At c3, the papyrus once again shows, above an ending with *theta*, the trace of a letter which appears to be a *nu*.[18] The series of lines which make up fragment (c) is poorly preserved, but, by contrast with fragment (a), it was already known (except for some scattered pieces of a first line) through the indirect tradition (DK B 20 = 60 Bollack), transmitted to us by Simplicius. Its reconstruction is therefore easy, and it is possible to make a comparison of the respective merits of the two readings.

DK B 20 = 60 Bollack = c2–8.
Τοῦτο μὲν ἀν βροτέων μελέων ἀριδείκετον ὄγκον
ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἓν ἅπαντα
γυῖα, τὰ σῶμα λέλογχε, βίου θαλέθοντος ἐν ἀκμῇ,
ἄλλοτε δ' αὖτε κακῆισι διατμηθέντ' Ἐρίδεσσι
πλάζεται ἄνδιχ' ἕκαστα περὶ ῥηγμῖνι βίοιο·
ὡς δ' αὕτως θάμνοισι καὶ ἰχθύσιν ὑδρομελάθροις
θηρσί τ' ὀρειλεχέεσσιν ἰδὲ πτεροβάμοσι κύμβαις

The first line is difficult. Martin and Primavesi suggest that *τοῦτο μὲν* (where *τοῦτο* is Diels' correction for *τοῦτον* in Simplicius) might be, not the subject of a nominative phrase,[19] but an adverbial accusative, introducing the first part of a comparison, for which (in a plausible variant of the pairing *τοῦτο μὲν… τοῦτο δὲ …*) *ὡς δ' αὕτως* in line 6 would be the complement.[20] Although the first construction cannot be ruled out, this is a very plausible hypothesis. In either case, the structure of the fragment is clear. Empedocles offers two successive illustrations of the principle of cosmic alternation, drawn respectively from the domain of humans (lines 1–5) and animals (lines 6 f.).[21] The first is based on the pairing *ἄλλοτε … ἄλλοτε*. On line 2 (=c3), should we (with Simplicius and the correcting hand) read *συνερχόμενα* or (with the first hand in the papyrus) *συνερχόμεθα*? If we adopt *συνερχόμενα*, it should at first glance be coupled with *διατμηθέντα*, the two participles being subordinate to the main verb, *πλάζεται*. But that is problematic from a semantic point of view: 'unification' and 'separation' (of the parts of our body) do not both seem to be instances of one and the same 'wandering,' because of the positive connotation of the former and the negative connotation of the latter.[22] That is why, even before the discovery of the papyrus, objections had been raised to Simplicius' text (*συνερχόμενα*) and proposals made to insert a conjugated verb – unless one were to take the participle absolutely and give it the meaning of the correction.[23] *Συνερχόμεθα* is unquestionably simpler. What alternates is 'coming together' (*συνερχόμεθα*) and 'wandering' (*πλάζεται*) itself.[24] *ἅπαντα γυῖα*, which might have prompted the correction of the first person plural into a present participle in the first place, presents no problem if taken as an analytical apposition ('we, who are all our limbs').

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[18] The vertical line might also indicate what remains of an *η* (Martin/Primavesi, 1999, p. 23).

[19] But in that case *ἀριδείκετον* must agree with *ὄγκον* ('Cela, dans la courbure admirable des membres de l'homme,' Bollack), and not *τοῦτο* (as in Diels, and others).

[20] Martin/Primavesi, 1999, p. 271. Examples of such pairing, and of the variants with which it can be replaced, are analyzed on pp. 166–8, with regard to ai2 (=DK B 17.31).

[21] Bollack, 1969, vol. 3/1, p. 103.

[22] It should be noted, however, that from the standpoint of finite life, Love is no less destructive than Strife. The bodies which are harmoniously separated out by Love in the early stage of its progress are also on the road toward fusion. If *συνερχόμενα* were to be kept, *πλάζεται* might express an intentional paradox.

[23] See Martin/Primavesi, 1999, p. 274.

[24] Note again the asymmetry between first person plural and third person singular.

Συνερχόμεθα is therefore the *facilior* reading here. It is all the more plausible to adopt it that the first person plural reads quite fluently in the context of an explicit comparison between 'mortals' (= mortal men) and all the other living species (trees, fish, land animals, birds). These 'mortals' are once again 'us' men – Empedocles and Pausanias, you and I: no longer as representatives of the totality of things, but, on the contrary, of a species among species. The case of c3 is therefore semantically different from ai6 despite the formal identity of the two cases, from a textual point of view.[25]

6 (d8), or the Collective 'we'

In d8, we read [ἐξικ]νούμε[θα γὰ]ρ πολυβενθ[έα Δῖνον?], ὀΐω. This line is part of a discussion about death and inflicting death, the end of which is preserved in the beginning of fragment (d) (lines 1–9). If this discussion is located in the wake of B 17 and the previous new fragments (see above §2 and n. 6), it may have been introduced in order to help Pausanias better understand what Strife is, just as he had previously been enlightened about the nature of Love (cf. DK B 17.8 = 251 *τὴν σύ νόωι δέρκευ, μηδ' ὄμμασιν ἧσο τεθηπώς*). Fragment (d) begins with a vivid evocation, under the auspices of the Harpies, of the decomposition and putrefaction of corpses. This description is interrupted by a 'lament,' in the form of an exclamatory aside:

ιοἴ]μοι ὅτ(ι) οὐ πρόσθεν με δι[ώλεσε νη]λεὲς ἦμαρ
ι]πρὶν] χηλαῖς ι]σχέ]τλι᾽ ἔργα βορ[ᾶς πέρι μητ]ίσα]σθαι].

The two lines of lamentation are nearly identical to a distich that has traditionally been attributed to the *Purifications* since Stein's edition (DK B 139), which does not mean that they may not also have occurred, perhaps with a significant textual variation, in another context (for example in the *Physics*).[26] Should we assume that Empedocles at this point steps back from his lament, following the editors' restoration: [νῦν δ]ὲ μάτη[ν ἐν] τῶιδε νότ[ωι κατέδ]ευσα παρειάς; or, following a suggestion by Sedley (forthcoming), accepts it with [οὐδ]ὲ μάτη[ν…? The choice will obviously have consequences for the interpretation of the subsequent explanation:

[ἐξικ]νούμε[θα γὰ]ρ πολυβενθ[έα Δῖνον?], ὀΐω,
[μυρία? τ(ε) οὐκ] ἐθέλουσι παρέσσε[ται ἄλγ]εα θυμῶι
[ἀνθρώποις?] …

The text is uncertain and the exact meaning difficult to recover.[27] While the reference to a metaphorical storm (*νότος*) can be accounted for in this context – the tempest would be the

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[25] 'Le dispositif se reproduit en c3 , dans les mêmes conditions, pour le même mot,' Martin/Primavesi, 1999, p. 23.

[26] Whether this is the case, or rather whether the second of the lines quoted by Porphyry in his *De abstinentia* 2.31.5 is the corruption of the original reading preserved in the papyrus cannot be decided here. The question is bound up with a difficult metric problem. See the discussion in Martin/Primavesi, 1999, pp. 297–302 (who argue for the second option).

[27] Note that the first person singular ὀΐω (which in this position expresses, both elsewhere in Empedocles – DK 31 B 16 – and in Homer, a fixed conviction concerning a future event, cf. Martin/Primavesi *ad loc.*) plays a pivotal role in the transition from one episode to another. In saying 'I think' (that is, 'this is the content of my thought'), the practical subject, who has given in to lamentation, is still identical to the theoretical subject, who knows the law of becoming (*I* think as much as I *think*). At the same time, the theoretical distance indicated by the verb itself allows for a return from the personal 'I' to men in general, referred to by ἡμῖν in d4 (the restoration is certain), to which the series of dative plural participles in d2

disruption caused by the Harpies – the insertion of δῖνον (the cosmical 'whirl') sounds odd.[28] One might think, for instance, that tears are useless because shedding them will not alter the course of things, or, alternatively, that the most terrible thing is yet to come. But whichever way we go, it seems clear that the 'we' here is strongly individualized. It is no longer either the representative of the things, or a privileged species, but a collective of human 'I's' all condemned to the same fate. Although understanding what this fate exactly consists in might call for further elaboration (perhaps announced in d10), the prophecy does not presuppose any knowledge about men's divine nature.

7 a(ii) 17, the Problem

There remains 287 (=a(ii) 17), where what we read is ρχομεθενμ = [εἰση]ρχόμεθ' ἕν μ[ονον εἶναι]. The line is the last of a section that describes the state of a 'world' under the dominance of Strife.[29] At this stage, the elementary masses and the constituent parts of the world, in particular the earth and the sun, were not yet formed (cf. 279, 283; 'under men' in 284 seems by contrast to be referring to the present state of the world). Strife is mentioned at the end point of this progression, as having reached the depths of the whirl, at the very moment at which Love, located 'in the middle,' begins to regain the upper hand, up until 'this very location' (I take this to be the meaning of ἐν [τῆι] δή, after ἐν δὲ μέσ[ηι] Φ[ιλ]ότης στροφα]λιγγι[30]), so that 'all these things unite [or inceptive: 'begin to reunite'] so as to be only one.' (290: ἐν [τῆι] δὴ τάδε πάντα συνέρχεται ἕν [μονον εἶναι.])

Line 287 refers to a process of unification *prior to* the beginning of this reunification. It is in order to take account of this first moment, if I have understood correctly, that the editors were led to offer an extremely restricted interpretation of the first person plural of the compound of ἔρχομαι that occurs at this point,[31] resulting in the identification of the subject ('we') with the scattered remnants of Love – remnants which in turn would be identical, according to one current interpretation, with the 'divinities.'[32] Just before Love reassumes power, they – that is, 'we,' according to this hypothesis – assemble at the center ('we were coming together to the middle places so as to be only one,' μεσάτους τ' (sc. τόπους) [εἰση]ρχόμεθ' ἕν μ[ονον εἶναι]).

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and d3 refer. From 'us men,' the perspective finally expands to that of the totality of things, requiring a different use of the personal pronoun from the first person pronoun ἡμεῖς at d10 (with which I began).

[28] At the Paris colloquium, J.-F. Balaudé suggested reading χῶρον in place of δῖνον; D. Sedley, in his forthcoming paper, suggests 'a word connoting for example misery, or doom.' J. Bollack orally suggested that d8 f. be understood positively, in order to avoid the introduction of a negation on line 9.

[29] There is some uncertainty as to the exact function of the section beginning at 273. Either this passage illustrates (i) the permanence of the elements through all their reconfigurations, whether these take the form of a world ordered by Love or (ii) a state of disorder that may exhibit different degrees. The final description, in this case, refers to a special and extreme case of 'acosmia.' Or we are dealing with a description, *via recta* so to speak, of the world in the grip of Strife, exhibiting for itself the contrast between the two reigns. The choice depends on a textual decision: if we accept πά]ντηι δὲ in line 273, which is an option considered by the editors (see Martin/Primavesi, 1999, p. 190), the main idea is permanence; ἐ]ν τῆι δε (= 'under Strife'), on the other hand, stresses contrast. See Laks 1999, p. 18.

[30] Martin/Primavesi understand the pronoun with Φιλότης ('under Love'), as they do on 273 with Ἔχθρη.

[31] The choice of a verb with a prefix (εἰσηρχόμεθα) is accounted for by Martin and Primavesi's understanding of the line: the 'divinities,' previously scattered, penetrate into the central regions. Osborne, 2000, p. 346 n. 27, observes that it might be a different composite, or even of a form of ἄρχω.

[32] This is the (extremely dubious) thesis defended by Martin and Primavesi, 1999, p. 92 f., following C. Kahn and D. O' Brien.

This would be, so to speak, the precondition for the very reassumption of power, and of the imminent unification of the world. It is a unification (287) before the unification proper (290), for the benefit of an entity whose unity foreshadows the unity of its effects.

This hypothesis rests on extremely fragile textual ground. There is little likelihood that line 287 originally looked the way the editors restore it. The adjective αὐθάδη ('self-willed') at the beginning of the line, is taken from the passage in Plutarch's *De facie* that is surely commenting on our passage.[33] But its introduction in this position is highly improbable: the ellipsis of τόπους with μεσάτους is uncomfortable; and the connection, by means of a simple τε, of the sentence segment μεσάτους τ' εἰσηρχόμεθα ἓν μόνον εἶναι is surprising, given the fact that the sentence is calling attention to the conditions for the *reversal* of the process described in the preceding lines.[34] Would it not make more sense if the line included a negative ('so that we were *un*able to come together to form a single thing')?[35] In that case, the reversal would be signaled by ἀλλ' ὅτ]ε δή at the beginning of line 288. It might have been an announcement, echoed by line 290 (just as 278 echoes 273). In this case, the alternation between the first person plural and the third person singular (neuter collective) would have the same significance as in ai6 (what I have called the 'expanded we'), which would no longer be much of a surprise, since the two passages, separated by only 20 lines, belong to the same development.

8 Conclusion

Even if the textual basis for adopting the first person plurals in the various relevant passages is less decisive in some cases than the editors sometimes acknowledge, it is still strong.[36] In any case, the alternation between the neuter and the personal form is certainly significant. We are dealing with traces of various lines of questioning, perhaps divergent interpretative traditions. The ancients, like us – not to mention Empedocles himself – asked themselves about the relation between the world's course of development and the fate of human beings, who are a part of it, even while being in a position, within certain limits, to step back from it, in particular through a certain kind of social construction. The semantic issue must therefore be raised in any case.

The editors assume that the plurals in ai6, aii17, c3, and d8 are semantically homogeneous, and they establish their common meaning on the basis of the problematic instance of aii17. I have suggested, on the contrary, that the different occurrences of the first person plural must be distinguished according to context (I have suggested four principal uses: the poetic, expanded, specifying, and collective 'we'), and that nothing points to unifying these different uses in the direction of the 'divine' unity of a single referent.[37] This purely negative conclusion, of course,

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[33] Martin and Primavesi, 1999, p. 214, quoting Plutarch's *De facie* 12, 926f.

[34] Here is the translation of lines 285–7 proposed by Martin and Primavesi: 'And in just the same way all these things (that is the elements) were running through one another and, having been driven away, each of them reached different and peculiar places, self-willed; and we were coming together in the middle places, so as to be only one.' (Note the semi-colon instead of a simple comma before 'and we were coming together …'; the corresponding French translation does not have it, so that the gathering at the middle appears on the same level, and a kind of natural sequel (τε) to the 'self-willed' erring of the elements.)

[35] Bollack, 2001, p.180 n. 16, concurs: 'Aussi faudrait-il plutôt au vers 287 introduire l'idée d'un "pas encore" (οὔ πω δή).'

[36] This is why I do not share Osborne's tendency to set aside the new first persons plural in favor of the traditional neuter pronouns (which is somewhat paradoxical given her own unitary line of interpretation of Empedocles: cf. Osborne, 2000, p. 349), nor the scepticism of Algra and Mansfeld, 2001.

[37] Note, by the way, that according to DK 31 B 117 (traditionally attributed to the *Purifications*), 'we' men are not the only place of transitory dwelling for fallen divinities: fish, birds, and plants are concerned as well.

implies no assessment of the status of Empedocles' 'demonology,' nor *a fortiori* about the relation between the physical poem and the *Purifications*, nor for that matter about the relation between the proem of the poem and the poem itself. That is another topic.

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Chapter 11

The Metaphysics of Physics: Mixture and Separation in Empedocles and Anaxagoras

Patricia Curd

Mixture and separation are obviously significant processes in the physical theories of Empedocles and Anaxagoras. But while recent work has discussed their roles in the emergence and disappearance of the qualities and structures of phenomenal entities, less attention has been paid to the natures of these processes themselves and the metaphysical assumptions with which they must be consistent.[1] In this chapter I focus on the metaphysics of pluralist theories; I explore how mixture and separation allow the metaphysically basic entities to be projected into phenomena without undergoing the fundamental change that would violate the Eleatic principles accepted by both Anaxagoras and Empedocles.

1 The Issues

Mixture and separation are the key to understanding how a rational cosmology is possible. By 'rational cosmology,' I mean an account of the nature of the world reported by the senses that does not violate Eleatic principles. Parmenides argues against the theories of his predecessors; but his quarrel is not with cosmological theories *per se*, but with the allegedly metaphysically basic entities posited by those cosmologies.[2] Parmenides' arguments show that the theories of his predecessors failed to meet the criteria for an acceptable account of what-is, by adopting as basic entities things that either changed in themselves or that were too indefinite to meet the strict requirements for what-is that follow from the claim that what-is is and must be and what-is-not is not and cannot be.[3] A rational cosmology begins, at the metaphysically fundamental level, with entities that satisfy the Parmenidean criteria for what-is. In order adequately to explain the world reported by the senses, those entities must in some sense *be* that world, and because that world is one of apparent change and local instability, these entities must somehow account for those changes while they themselves remain unchanged and changeless. So, in a rational cosmology there must be an explanation of how the unchanging, permanent, monistic (in the appropriate sense) basic entities are projected into the phenomenal world.[4]

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[1] Most notably and fruitfully perhaps, in Mourelatos, 1987. It is then appropriate to explore these processes more fully in an essay that is offered in thanks as part of a celebration of A. P. D. Mourelatos' contributions to the study of the history of ancient philosophy.

[2] Many of the points I make in this chapter are based on and expand arguments that I gave in Curd, 1998b. On this issue, see Ch. 1.

[3] See for instance DK 28 B 2, the arguments of B 8.1–49, and the *krisis* of B 8.15–16. I discuss the structure of Parmenides' arguments for these claims more fully in Curd, 1998a.

[4] For the phrase and the idea of 'projection' I am indebted to Scott Austin, who suggested to me that a completion of my project in *The Legacy of Parmenides* (Curd, 1998b) would include an account of how metaphysics and physics combine in rational Presocratic cosmologies. Each of the basic entities is one in the sense that each satisfies Parmenides' criteria for a predicational unity.

Mixture and separation are the projection processes chosen by both Anaxagoras and Empedocles as well as by the Atomists (although I say nothing about Atomism in this chapter). Anaxagoras is explicit about these mechanisms and their role:

> The Greeks wrongly believe in coming to be and passing away; for no thing (*οὐδὲν γὰρ χρῆμα*) comes-to-be or perishes, but rather it is mixed together and separated from the things that are (*ἀπὸ ἐόντων χρημάτων συμμίσγεταί τε καὶ διακρίνεται*). And so they would rightly call coming-to-be being mixed together and perishing being separated. (59 B 17)

Here, the 'things that are' are the *chrêmata*, the basic entities of Anaxagorean metaphysics.[5] These *chrêmata*, by mixing and separating, account for the apparent coming-to-be and passing-aways of the sensible world. 'Coming-to-be' and 'passing-away' would seem to include not only the generation and destruction of substances (as Aristotle would put it) but also alterations in those substances, which constitute the comings-to-be and passings-away of qualities that inhere in a substance (as we would anachronistically say).[6] A similar story appears in Empedocles:

> And I shall tell you another thing: there is growth (*φύσις*) of none of all
> mortal things (*θνητῶν*), nor is there any end in baneful death,
> but there is only mixing and separating of what is mixed
> (*ἀλλὰ μόνον μίξις τε διάλλαξίς τε μιγέντων*)
> and growth (*φύσις*) is the name given these by human beings. (31 B 8)

Like Anaxagoras, Empedocles stresses the unreality of coming-to-be (here identified with growth) and passing-away (here called 'death'). Instead of genuine generation and corruption, there is only mixture and separation of what is mixed (see also B 9). For Empedocles, what are mixed and separated are the roots: Earth, Water, Air, and Fire. These are the real or genuine entities, along with the forces that act on them, Love and Strife, which are also real. Empedocles stresses that only these things are (that is, that only these six are genuine realities), and says a number of times that the phenomenal world, the world of 'mortal things,' is the result of the 'running through' each other by the roots under the control of Love and Strife (see also B 17.34–5, B 21.13–14, B 26.3–4).[7] Empedocles makes the point forcefully in B 21. The fragment begins by mentioning the witnesses to his words about the roots, relying on the phenomenal appearances of the roots in their almost pure form: the sun is bright and hot; air also hot and shining; rain, dark and cold; and earth, dense and solid.[8] When Simplicius quotes B 21 (*In*

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[5] Some (Schofield, 1980; Vlastos, 1950, following Tannery and Burnet) have argued that the *chrêmata* in Anaxagoras should be restricted to the opposites. Others have argued for a wider view – that when Anaxagoras says 'every thing' he means just what he says. For a discussion of these issues, see Graham, 1994 and 1995. Graham rightly rejects the 'opposites' view. Whatever the *chrêmata* are, each has a nature and character of its own, which is known by *Nous* and which remains constant throughout the mixings and separatings (for the arguments supporting this claim, see Curd, 1998b, pp. 131–47). I suspect that 'thing' is a technical term in Anaxagoras and is not meant to include everything that appears in the phenomenal world – some phenomenal secondary qualities may be the result of mixture as much as of separation. More of this below.

[6] We need to remember that our language is not that of the Presocratics. But if we recognize this and are aware of the dangers in such anachronistic talk, we may proceed and use such words as 'substance' with due caution.

[7] The processes are further explicated in the new Empedocles material from the Strasburg papyrus (P. Strasb. gr. Inv. 1665–6). The largest reconstructed grouping (ensemble *a*) is a continuation of DK B 17; the other new fragments also overlap with previously known material: ensemble *b* includes some of B 76; *c* contains material from B 20; lines 5–6 (of 19) in ensemble *d* match B 139 (with the bonus of settling a contested reading). For the reconstructed text, see Martin and Primavesi, 1999. For discussions of the material, see Laks in this volume and 1999; Osborne, 2000; and Curd, 2000.

Phys. 33.8 ff.), he offers it as evidence that Love and Strife are mixed in all things. But he also points out that the fragment includes Empedocles' descriptions of the characteristic features (*γνωρίσματα*) of the roots, and Simplicius treats the fragment as evidence that each root has its own character (as do Love and Strife), just as B 17.27–9 had asserted. But B 21 goes further and asserts that 'from these [the roots] as many as are and were and will be in the future have sprouted [*ἐβλάστησε* – note the biological resonance]: trees and men and women, and beasts and birds and water-nourished fish, and also long-lived gods first in their honors.' Here the gods are apparently contrasted with the roots: the gods are 'long-lived' (*δολιχαίωνες*) which is not to say they have the immortality attributed to the roots – for the roots have just been said to be that from which the gods have sprung or sprouted.[9]

These passages from Empedocles and Anaxagoras show that both accept the Parmenidean conclusions about the nature of what-is.[10] Both make it clear that their basic entities are things

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[8] I take it that the phenomenal 'witnesses' here are similar to but not identical with the roots; they too are mixtures, but each is a mixture in which the particular root that gives it its name predominates.

[9] B 146 traces the development of lives, ending with the gods. This makes it clear that even the gods are grounded in the roots (the genuine and unchanging realities of the system). B 112.4 is one of the few places where Empedocles attributes immortality to something other than the roots, and here he apparently attributes it to himself. But it is worth noting that in this passage (which is probably the opening of the *Katharmoi*), Empedocles does not openly assert that he is no longer mortal in the sense that he himself would survive into the mixture of the roots in the Sphere or in the total separation of the roots under the triumph of Strife (Inwood translates 'in your eyes a deathless god …'); nor does B 146 attribute genuine immortality to the gods whom Empedocles elsewhere calls 'long-lived.' Primavesi has argued that the occurrences of first person plurals in the new Empedocles material indicates that there is a sense that 'we' (as particles of love) survive the move into the Sphere, but that view (rightly) has been vigorously challenged by Laks (this volume) and Osborne, 2000.

[10] Other passages in Anaxagoras and Empedocles also indicate Parmenidean influences. Anaxagoras B 3, for instance, claims that there is no least but always a lesser because 'it is not possible that what-is not be' (*τὸ γὰρ ἐὸν οὐκ ἔστι* [*τὸ*] *μὴ οὐκ εἶναι*) (for the text, see Schofield 1980, p. 80 and n. 15 [pp. 156–7]). B 17 is clearly an adoption of Parmenides' views on the impossibility of change or coming-to-be, and at B 5 Anaxagoras gives as a reason why 'all things are neither less nor more' that 'it is not to be accomplished that that they are more than all,' with *οὐ γὰρ ἀνυστόν* echoing Parmenides' use of the same phrase in B 2.7. The verbal reminiscences of Parmenides are even stronger in Empedocles. Not only does Empedocles, like Parmenides, write in Homeric meter, but there are also a number of apparently deliberate imitations of Parmenides' thought and language. For instance, B 110's promise that if we gaze on 'these things' in a kindly way they will be present all through life is a reminder of Parmenides B 4, while in B 17.26 the speaker refers to the 'undeceptive ordering of my account (*λόγου στόλον οὐκ ἀπατηλόν*)' – a clear reference to Parmenides B 8.52. At B 17.30–33 Empedocles' claim that besides the roots nothing comes to be or ceases to be, followed by a series of rhetorical questions, suggests Parmenides' similar strategy of rhetorical questioning in B 8.6–7, 9–10, and 19. In Empedocles B 12.3 it is 'not to be accomplished and unheard of (*ἀνήνυστον καὶ ἄπυστον*)' that what-is should perish, echoing both Parmenides B 2.7 and B 8.21. At B 23.8–10 Empedocles exhorts his hearers not to let deception compel them to believe that mortal things are anything other than mixtures of the roots (just as in B 7 Parmenides' Goddess exhorts the *kouros* not to let habit compel him along the route of mortals), and Empedocles B 23 ends with a guarantee of truth: we have heard the story from a god. This is surely a reference to Empedocles' belief in his own divinity but it might also be a reminder of the Goddess who guarantees the truth of Parmenides' claims (although, unlike the narrator of Empedocles' poem, she demands that the *kouros* 'judge by *logos* the much-contested testing' that she speaks). In B 8, 11, and 12 Empedocles stresses the unreality of coming-to-be and passing-away and the unchanging natures of the roots, clear reminders of Parmenides' claims. Finally, in B 13 Empedocles says that none of the whole is empty, which picks up on Parmenides B 9; the claims in B 2 about the limits of human thought and perception bring to mind Parmenides B 16; and the Empedoclean Sphere formed by the triumph of Love is clearly modeled on Parmenides' image of what-is, which is 'completed, like the bulk of a sphere well-rounded from every side' (B 8.42–3). Verbal echoes are, of course, in the mind's ear, and there may be

that *are* in the strongest sense, and that they are unchangingly, wholly, and completely just what they are. These basic entities neither come to be nor pass away. Moreover, in choosing mixture and separation as the means by which genuinely real things constitute phenomenal objects, Empedocles and Anaxagoras are again following a Parmenidean model – one that appears in the *Doxa*.[11] Few details of the cosmology of the *Doxa* survive, but both the fragments and the testimonia suggest that mixture and separation played a crucial role. Although Parmenides' intent in including the *Doxa* in his poem remains controversial – is it meant seriously as a model of how what is metaphysically basic can be the foundation for a rational cosmology, or ironically, or as a representation of complete deception, or as a model of a possible cosmology that is nonetheless an account of becoming separated from what is genuinely real? – the evidence indicates that Anaxagoras, Empedocles, and the Atomists saw in his use of mixture and separation a mechanism for explaining the features of the phenomenal world without destroying or otherwise changing the basic entities of their theories.

Parmenides' *Doxa* begins with two (supposedly) basic entities, Light and Night, and then seemingly shows how the *kosmos* that appears to the senses is built up out of the two by mixing and separating.[12] Certainly fragments B 10, B 11 and B 19 suggest that in the course of the *Doxa* the goddess will explain the whole of the *kosmos*, not only its coming to be but also the characters and workings of its various parts. B 10 and B 11 promise a full cosmology, and according to Simplicius, the *Doxa*'s account takes Light and Night as the fundamental entities of the physical world.[13] That this explanation relies on the mixture and separation of basic entities is hinted at in B 9:

> But since all things have been named light and night
> and these in accordance with their powers [are given] to these things and these,
> then all is full of light and obscure night together,
> of both being equal, since nothing belongs to neither.

Awkward and unclear as this passage may be, one thing is definitely asserted: the *kosmos* reported by the senses is 'all full of' both Light and Night. Light and Night constitute the basic things of the *kosmos*, filling it completely: there is no place where there is neither Light nor Night (or some mixture of the two) – for 'nothing belongs to neither.' Phenomenal things, then, are the result of combinations of the two basic things. These combinations are mixings and separatings, at least according to certain testimonia: in the *Reply to Colotes*, Plutarch says that Parmenides made a

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others in both Anaxagoras and Empedocles, but these that I mention are at least evidence that Parmenides' entire poem loomed large in the thoughts of both Pluralists.

[11] For another account of the influence of Parmenides' *Doxa* on Empedocles (but with no discussion of Anaxagoras), see Finkelberg, 1997.

[12] I say 'supposedly basic' because I think that Parmenides intends his hearers and readers to realize that neither Light nor Night qualifies as a genuine basic entity, for neither can satisfy the criteria of B 8. (It is in this that the deception of the *Doxa* is to be found.) But the failure of these two particular entities does not vitiate the *Doxa* as a model for a successful rational cosmology. Moreover, the success of my particular interpretation of the *Doxa* is irrelevant to what I say in this chapter about the *Doxa* as a model for later rational cosmology. The account that I have offered of the relation of the *Doxa* and the *Alêtheia* suggests that Parmenides himself intends the *Doxa* to have a positive influence on its hearers/readers insofar as it provides a final examination in the lessons of the *Alêtheia*. I gave an account of the *Doxa* as a serious lesson in rational cosmology (through giving a cosmology that ultimately cannot succeed), and discussed other views of the *Doxa* in ch. 3 of Curd, 1998b. For a different interpretation, taking the *Doxa* as a serious cosmology, see now Nehamas, 'Parmenidean Being/Heraclitean Fire' in this volume.

[13] Simplicius, *In Phys.* 179.29–33. A similar claim appears at *In Phys.* 30.20–22. At *In Phys.* 39.12–13, Simplicius, about to quote B 12.1–3 with its mention of the goddess in the middle of the rings, says that 'he goes on, speaking thus of the productive agent' (τὸ ποιητικόν λέγων οὕτως).

cosmic order by the mixing of the light and the dark as elements (*καὶ στοιχεῖα μιγνὺς τὸ λαμπρὸν καὶ σκοτεινόν*).[14] In B 12 parts of the *kosmos* (the 'narrower rings') are said to be unmixed fire, while other parts ('those next to them') are night with a 'due amount'(*αἶσα*) of fire included.[15] B 12 also reports a goddess in the middle of the cosmic rings; she 'steers everything, for she rules over hateful birth and mixing (*πάντα κυβερνᾶι … γὰρ στυγεροῖο τόκου καὶ μίξιος ἄρχει*);'[16] and it is she who sends female to 'mingle with (*μιγῆν*)' male. Here again, mixing is the model for the coming to be of apparently new things, which are ultimately produced from the combinations (and subsequent separations) of the basic entities.[17] As long as one accepts that these new things are not basic but dependent on the mixture and separation of the metaphysically basic entities with which the cosmology begins, one will not be led astray into taking the forbidden path of mortal inquiry. That path takes coming-to-be and passing-away as genuinely real and accepts the appearances as all that there is. This is the error that the goddess points out at the end of B 1, contrasting the 'unshaking heart of well-persuasive truth' with 'the beliefs of mortals in which there is no true trust' (B 1.29–30). At B 1.31–2, the goddess tells the *kouros* that he must learn mortal beliefs and expresses them this way: 'how it was right that the things that seem be reliably, being indeed, the whole of things?' (*ὡς τὰ δοκοῦντα χρῆν δοκίμως εἶναι, διὰ παντὸς πάντα περ ὄντα*). Mortals, who go astray in taking the world reported by the senses to be all that there is, think that the appearances are reliable (that is, are real), and fail to understand that that world of the senses is supported by the genuinely real basic entities that pass the criteria of B 8 and mix and separate to produce the phenomena.[18]

Why are mixture and separation so crucial to a rational cosmology that satisfies Parmenidean criteria? Cosmological theories before Parmenides hardly mention these processes, yet they are

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[14] *Adv. Colotem* 1114b = context B 10 in DK. Plutarch goes on to comment that Parmenides left 'nothing of importance unsaid' (*καὶ οὐδὲν ἄρρετον … τῶν κυρίων παρῆκεν*), suggesting that the cosmology of the *Doxa* was quite complete.

[15] For discussion of the known details of the cosmology of the *Doxa*, see Coxon's commentaries on the relevant fragments in Coxon, 1986. See also Finkelberg, 1997, for a discussion of both mixture and separation in Parmenides' cosmology. Finkelberg renders B 12.1–2 as 'The narrower were filled with unmixed fire, and those next to them with night, and between them a portion of fire is brought.' See also Finkelberg, 1986.

[16] The 'hateful birth and mixing' is either of all things or everywhere (depending on the text one accepts at B 12.4).

[17] The extant fragments do not discuss separation. But see Finkelberg, 1997, pp. 3–5 for a discussion of the role of *eros* in mixture, and for a discussion of Cicero's mention of Bellum and Discordia in *De Natura Deorum* 1.28 – DK 28 A 37 ('multaque eiusdem <modi> monstra: quippe qui Bellum, qui Discordiam, qui Cupiditatem ceteraque generis eiusdem ad deum revocat …'). Finkelberg interprets Bellum and Discordia as a force of separation in the Parmenidean cosmology, and takes it that they, along with Eros, were devised by the goddess who is in the midst of everything. It is not entirely clear whether Finkelberg takes Bellum and Discordia to be a single force or to be two distinct forces (see, for instance, pp. 3 and 5). If Parmenides indeed postulated forces of both mixture and separation and named them as Cicero reports, here is yet another way that the *Doxa* served as a literal as well as theoretical model for Empedocles.

[18] Here, in B 1.32, I follow Owen, 1960, in reading *περ ὄντα*, and take mortal error to consist in failing to understand that the appearances are not all that there is. There is also manuscript evidence (Simplicius A) for *διὰ παντὸς πάντα περῶντα* as the last words of the line. In that case, mortals take the appearances to be real because they 'pervade all things' and thus seem to be all that there is. One might think that the phrase *διὰ παντὸς πάντα περῶντα* suggests that the reference to things believed to be reliably, 'all of them running through all' is a shorthand way of referring to the mixture and separation of genuinely real things in a rational cosmology. But that interpretation overlooks the fact that what we are given in here in B 1.32 is an error to be avoided. The rational cosmology based on the mixture and separation of genuine entities is not an error, but a correct account of the world reported by the senses as it is grounded in what is genuinely real. So I do not see B 1.32 as a foreshadowing of the *Doxa's* account of mixture and separation.

present in three of the most prominent post-Parmenidean accounts.[19] Their importance lies in what they permit such a cosmology to explain. It is a fundamental tenet of Parmenidean metaphysics that what-is cannot alter or change; any such change would destroy the single nature of each genuinely real thing. Mixture and separation allow for the appearance of new phenomenal objects without admitting alteration in the basic character of the metaphysically basic entities that constitute the first principles of a rational cosmology. It is instructive to compare this mechanism and its results with earlier views, particularly those of the Ionians, where other notions of an *archê* and other mechanisms are at work.

It is helpful to think of early Ionian theories, particularly those of the Milesians, in terms of what Daniel Graham has called a generating substance theory.[20] A generating substance, such as Anaximenes' air or Anaximander's *apeiron*, is original and an *archê* in the sense that it is the original stage of the *kosmos*, but it does not persist through the changes that then take place. Rather, it is the ground or generating source of new entities by being transformed into them. As Graham puts it,

> Although the doxographic tradition tends to read the early Ionians through Peripatetic spectacles, i. e., to see successor substances or powers as modifications of a single persistent element, verbal echoes of the Ionians suggest just the opposite: the original substance does not persist but is transformed into or 'perishes into' another substance.[21]

Thus, according to the report in Pseudo-Plutarch (12 A 10), Anaximander's *apeiron* serves as such a ground and generating substance:

> He says that something[22] productive of hot and cold was separated off from the eternal during the genesis of this world and from this a sphere of flame grew around the air around the earth like the bark around a tree. When this was broken off and closed up in some circles the sun and the moon and the stars came to be.

Apparently the *apeiron* does not maintain its identity throughout these changes but is changed (by some mysterious mechanism that is not described) into the 'something productive of hot and cold.' It is then hot and cold (and perhaps other opposites) that account for the phenomenal world.[23] In Anaximenes, air is the generating substance. It is the 'first thing' but is transformed, as when (according to Hippolytus' account of Anaximenes' system), it is compacted ('felted') into cloud, and then cloud is felted into water, water into earth, and then earth into stones (see 13 A 7). Further, after saying that air is the *archê* 'from which came to be the things coming to be and the things that came to be and the things that would be and gods and divine things,' Hippolytus claims that 'the rest [came to be] from the offspring of this' (*τὰ δὲ λοιπὰ ἐκ τῶν τούτου ἀπογόνων*) (13 A 7).[24] So, in a generating substance theory, there is an unfolding

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[19] One pre-Parmenidean exception is Xenophanes. See n. 25 below. I discuss mixture and separation on the Parmenidean model more fully in Anaxagoras in Curd, 2001.

[20] Graham argues that the notion of a generating substance better captures the early Ionian view than the traditional notion of material monism, insofar as material monism is supposed to be committed to the persistence of the original substance through changes. I am here following the interpretation of Ionian philosophy that Graham develops in his 1997, especially pp. 12–26.

[21] Graham, 1997, p. 23.

[22] Here I follow Hölscher and Kahn in reading *τι* rather than *τό*.

[23] It would thus be the opposites that pay recompense to one another in Anaximander B 1. The *apeiron* is the first principle but it merely gives rise to 'all the heavens and the worlds in them' – and does not remain through the changes.

[24] For further discussion of this text, see Graham, 1997, pp. 22–3 with notes. Commenting on the passage, Graham suggests that 'come to be' should be understood as 'to be born' – and that 'the

progression of becoming, with the original *archê* being the beginning state or stuff of the *kosmos*, but not retaining its character and identity through the various changes that take place in the *kosmos*. Even if the original stuff reappears in the course of the cosmic changes (as air may reappear from the rarefaction of cloud in Anaximenes' system), it is not the case that air was, in some sense, there all the time or persisted through the changes. In Xenophanes B 30.4, for instance, the great sea is the 'begetter' of clouds, winds, and rivers (*μέγας πόντος γενέτωρ νεφέων ἀνέμων τε καὶ ποταμῶν*), and there is no evidence that Xenophanes thought that sea 'survived' its change (through alteration) into these other forms. Such a theory would be a prime target of Parmenides' arguments. For what-is (the *archê*) would both cease to be and become in the course of cosmic development. A generating substance theory would thereby be committed to the reality of coming-to-be and passing-away (a mark of a theory on 'the route of mortals' for Parmenides). So, to embrace the arguments of Parmenides, later thinkers would have to reject a generating substance in favor of a set of genuinely real entities that persist through apparent change, and a mechanism for that apparent change that would leave intact the character or identity of these basic entities. Both Empedocles and Anaxagoras reject generating substances in favor of metaphysically basic entities that retain their identities and natures throughout processes of the *kosmos*. Mixture and separation would seem to be ideal candidates for the necessary mechanism, for they could account for apparently new things while not allowing genuine coming-to-be or passing-away. The generating substance theories, insofar as they consider the mechanism of change, seem not to have relied on mixture and separation, but on other sorts of causal principles, particularly alteration. Even Xenophanes, who does treat some cosmological phenomena as mixtures, seems more fully wedded to the generating substance view with its commitment to an alteration in the original substance (or, perhaps in Xenophanes' case, pair of substances).[25] With this new device of mixture and separation, and with a set of genuinely real entities, post-Parmenidean thinkers can both accept Parmenides' metaphysical arguments and also formulate rational cosmologies.

Heraclitus had already provided an example of this mechanism in fragment B 125. The *kukeôn*, the sacred barley drink, is a mixture of barley, grated goat cheese, wine, and perhaps honey.[26] These ingredients do not dissolve or even disappear into the mixture that constitutes the drink, and without the active mixing there is no *kukeôn*; rather there are simply layers of the ingredients. What goes into the mix is what comes out in the separation, with no real change; but while the ingredients are mixed, and that mixture is held together by the action of stirring, something

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successor substances of air' should not be thought of as modifications of air that are somehow still really air, but as genuine successors – 'created by but not consisting of air' (p. 23).

[25] Finkelberg, 1997, argues that Xenophanes adopts a theory of mixture and separation that is a model for Parmenides and hence for Empedocles. But I do not see that the examples he adduces present us with the account of mixture and separation of metaphysically basic entities to produce the phenomena that we find in Parmenides and the later Pluralists. Rather, what Finkelberg discusses are physical processes that take place in the phenomena themselves. Thus I find his summary of Xenophanes' view as a 'theory of the manifold as constituted by two primary bodies and their various mixtures (but also by phenomena which come into being due to qualitative transformations of the primary bodies)' (p. 13) to be perhaps an over-interpretation of the evidence. Moreover, Finkelberg's parenthetical remark about qualitative transformations shows how much more closely Xenophanes fits into the generating substance model suggested by Graham. It is true that Xenophanes seems to accept earth and water as having a special role and they turn up in a variety of explanations, but it is not clear that Xenophanes really conceives of all things as a result of one, the other, or a mixture of the two. As Finkelberg himself acknowledges, *ἀλλοίωσις* seems to play as large a role in Xenophanes' system as does mixture. A fuller explanation of the roles of cloud and of heat (or fire) in Xenophanes' theory would also be necessary before this issue could be decided.

[26] I here follow the recipe given in Kirk, 1954, p. 256. Kirk refers to *Il.* 11.638 and to *Od.* 10.234 (for Circe's addition of honey).

apparently new appears to our senses: the posset itself.[27] So the mixing and separating provide a model of how something apparently new can seemingly come to be or pass away without the actual occurrence of either generation or destruction and without apparent change in the ingredients that make it up. On the Empedoclean version, the four roots play the roles of the barley, wine, cheese, and honey, and the result of their mixing in different ratios is the whole *kosmos*.

Yet there are difficulties in this account. One of the most obvious is the question that Empedocles, but perhaps not Anaxagoras (with his indefinitely many *chrêmata*), must face: how can four ingredients and two forces account for everything in the *kosmos*? Empedocles goes some way toward answering the question in fragments B 96 and B 98, when he suggests that different ratios of differing ingredients produce bones and flesh and blood.[28] But B 98 raises as many questions as it answers, for 'blood and other forms of flesh (*καὶ ἄλλης εἴδεα σαρκός*)' all have the same recipe: equal parts – more or less – of all four roots. Why do we sometimes get blood, and at other times get flesh, from the same ingredients in the same proportions? And what are we to make of the 'either a little of more or of less among the more' of B 98.4?[29] How much 'more or less' will result in something other than blood or flesh?[30] One possibility, to which I shall return, is that the 'particle size' of the ingredients and the degree of their mixture may explain the different outcomes.

However much we might have preferred Empedocles to be more exact, these are not the most troubling questions that can be raised about relying on mixture and separation as the mechanisms of a rational cosmology. There is a more basic question. Can mixing be acceptable to someone with an Eleatic metaphysics? That is, can mixture (or separation) leave the ingredients unchanged so that what comes out of the mixture through separation can be identified as exactly the stuff that went into it? Is the fire that goes in exactly the same as the fire that comes out? This is crucial for the success of the theories. If mixing affects the ingredients in such a way that they themselves undergo change, this theory fails to meet the Parmenidean criteria, for it will be committed both to the reality of change and to the possibility that what-is can become what-is-not. And if mixing indeed leaves the ingredients essentially unchanged, can it adequately explain the apparently new phenomena of the world reported by the senses? Most discussions of the problem of emergence through mixture or separation have focused on the issue of what emerges from the mixture, examining how the product of mixture can be genuinely new yet not have come to be. Here I am concerned with another aspect of the process: how can the original basic entities still be there in the emergent thing? Can one metaphysically basic ingredient genuinely mix with another and still retain its character?

Moreover, one might well ask for fuller analyses of the processes of mixture and separation themselves. Aristotle raises such issues in *De generatione et corruptione* I.10, and he clearly

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[27] Heraclitus himself does not, of course, use the *kukeôn* as evidence for cosmic mixture and separation. I take his use of it to show that change and motion (strife) are necessary for the *kosmos* to retain its identity. Without constant stirring, the *kukeôn* has no identity as a posset – it is simply layers of ingredients. But however unintentionally, Heraclitus' example shows the power of the processes of mixture and separation.

[28] It is worth noting that bone seems to have no air in it (bone is two parts earth, two parts water and four parts fire – assuming that Nestis is water and Hephaistos is fire).

[29] This line is suspect. I follow Wright and Inwood in accepting Dodds' proposal of *εἴτ' ἐν πλεόνεσσιν*. In her discussion of the fragment, Wright says, 'the proportion is not perfect, cf. *ἴσῃ μάλιστα* in line 1, and so the amount of earth does not exactly match the separate amounts of fire, air, and water, but may be a little more (with less of the other three) or less (where they are more)' (p. 238). Inwood, on the other hand, takes *ἴσῃ … μάλιστα* to mean 'most equally.'

[30] Anyone who cooks will know that 'a little more or less' of certain ingredients often makes no difference at all; but there are some recipes that require exact amounts and too much or too little of one ingredient will result in something quite different from what the cook may have expected or intended.

has the Presocratics in mind. Aristotle himself feels the force of these questions, for he posits mixing as the mechanism by which the elements give rise to the homoeomeries (see *GC* II.7). The point at issue may not be exactly the same for him as for Anaxagoras and Empedocles, but the problem is equally important and is importantly similar: for Aristotle the elements must be retrievable from the particular mixtures that are the homoeomeries just as the roots and the *chrêmata* must be retrievable from mixtures for Empedocles and Anaxagoras.[31] It is thus tempting to think of Anaxagorean and Empedoclean mixtures as being like chemical suspensions.[32]

One problem with the suspension model is that while the mixtures must have the characteristics of the ingredients in them, they cannot be identified simply as a collection or heap of those ingredients. The earth in a mixture may account for certain characteristics of that compound – the heaviness of lead for instance, could be the consequence of the high proportion of earth in the mixture that constitutes it – but we need to be able to say that what we have in front of us is lead, not simply a suspension of earth in water with other substances. Even if the objects reported by the senses do not have genuine natures and so are not genuinely real, if a theory is truly to be explanatory, these objects still must be identifiable as something, and as something different from other phenomenal objects. For each seems to be *an* object, independent of other objects, and re-identifiable over time, not just a heap of ingredients.[33] Aristotle seems to have this in mind when he distinguishes mixing (μίξις) from composition (σύνθεσις) at *GC* I.10 (328a5–7). For, Aristotle argues, if mixing were just composition, then mixing would be relative to perception. And, he clearly assumes, mixing is not like that. But was it like that for the Presocratics? I propose to answer this question by looking more closely at the accounts of Empedocles and Anaxagoras. Although I suspect that Anaxagoras predates Empedocles slightly, I shall discuss Empedocles first.[34] His account is, in some ways, more straightforward than Anaxagoras', and the contrast between them can be helpful in exploring Anaxagoras' views on mixture and separation.

2 Empedocles on Mixture and Separation

As we have seen, in B 8 and B 9 Empedocles treats mixing and separating as the crucial processes through which the objects in the world reported by the senses are generated and destroyed. In both fragments he stresses that 'coming-to-be' and 'passing-away' are the conventional, and technically incorrect, names given to these processes. But he also indicates – at B 9.5 – that he himself will adopt the convention. Although mixing and separating are the

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[31] For a full discussion of issues of this sort, with respect to Aristotle, see Fine, 1996. I am not sure that Aristotle must retrieve the very same fire from the mixture as went into the mixture; Fine thinks he must, and if this is correct then the issue is just as pressing for Aristotle as it is for the Pluralists. That Aristotle's mixtures result in homoeomeries is a complication for the Aristotelian view, for despite Aristotle's claims to the contrary, Empedoclean or Anaxagorean mixtures need not be homoeomerous. For a clear discussion of the issue of homoeomeries in Anaxagoras, see Graham, 1994, who argues persuasively that the 'homoeomeries' in Anaxagoras are foisted upon him by those who have been influenced by Aristotle's less than neutral interpretation. See also Dragona-Monachou, 1977.

[32] Graham suggests such a model on Anaxagoras' behalf in his 1994. Empedocles may have a suspension in mind in his model of the mixing of paints in 30 B 23.

[33] I am using 'object' here in a neutral sense; so something that we might call a substance, that is, gold or clay, would count as an 'object,' as well as things that are more obviously 'objects,' such as trees or cows. I wish to avoid the word 'substance' as it would be misleading; first, only genuinely real things – the basic entities – could be substances in the strict sense, and second, the word itself is an anachronism here.

[34] For the chronology and its problems, see Curd, 1998b, pp. 17–18 with n. 37.

processes that operate in the sensible world, they are not themselves the fundamental forces at work in Empedocles' *kosmos*. Rather, Love and Strife are the real drivers of the universe, and it is under their control that mixing and separating take place. Empedocles does not identify just one of the forces with just one of the processes: mixing and separating can both occur through the agency of each of the forces. By bringing together unlikes, Love not only mixes unlikes, but she separates like from like. Strife not only breaks apart mixtures of unlikes but mixes like with like. When Love is in absolute ascendancy, everything will be mixed in the Sphere so completely that none of the roots is evident on its own, and when Strife rules absolutely, all the earth will cling to all other earth, and similarly for fire, water, and air, so that there is complete segregation of the roots. But for most periods of the cosmic cycles, various local mixings and separatings of both likes and unlikes can occur, directed by either Love or Strife.[35] So, by attracting like to like, and unlike to unlike, Strife and Love are the real causes of the mixing and separating that result in the apparent comings-to-be and passings-away that constitute the world reported by the senses. The extant fragments do not give a clear picture of the details of these processes. Empedocles uses a number of words in his descriptions of and references to them, and it is not obvious that any particular analysis will follow from them. For instance, he uses not only the image of 'running through,' but also both μίξις (along with forms of μείγνυναι) and κρᾶσις.[36] Mourelatos, following Schwabe, has pointed out, in a discussion of Anaxagoras' vocabulary of mixture, that 'words of the *mig-* root … in general usage differ from words of the *kera-* root, roughly, as "scramble" and "mingle" differ from "blend" and "fuse".'[37] But Empedocles' use of words from both families does not show clearly what he has in mind in speaking of the mixing, blending, or running through one another of the roots. Empedocles must maintain that the roots are fundamentally unchanged in their very natures by the mixing and blending that they undergo. Otherwise he could not insist that coming-to-be and passing-away are not real and that the results of mixing and separation are not genuinely real things, a position that is reinforced by his claim that the objects that result from the operations of Love and Strife are what he terms 'mortal things.'

In the fragments that discuss the processes at work in the *kosmos*, Empedocles lays more stress on the eternal (immortal) and unchanged nature of the roots than on the mechanics of mixing (see for instance B 11, with its claim that those who think that generation and destruction are real are fools, νήπιοι). But there are hints about the process and about the characters of the roots as the processes take place. Empedocles says that the roots run through each other, and this claim is made three times, in identical lines, and in contexts that stress both the reality of the roots and their commingling with each other: 'these very things are, and running through each other . . .' (αὐτὰ γὰρ ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα).[38] Each time the line occurs, the following line adds something about the process of running through. At B 17.35 the following line claims that in running through each other the roots become different mortal things at different times; at B 21.14 Empedocles asserts that the running through of the roots produces different appearances; in the third version (B 26.4–5), the line that follows claims the roots 'become' humans and the other kinds of animals. The phrase 'running through each other' (δι' ἀλλήλων δὲ θέοντα) suggests an easy and flowing motion for the roots – indeed as phenomenal water and air flow in the natural world, and the flowing together might be considered as similar

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[35] Thus, although many of Empedocles' examples focus on Love, both Love and Strife can be creative forces.

[36] One occurrence of a form of κρᾶσις occurs in the suspect last line (14) of B 21. The mss have διάκρισις; the various emendations adopted by D.K. Bollack, and Wright all include κρῆσις. Κρῆσις also appears in B 22.4 and in B 22.7.

[37] Mourelatos, 1987, p. 150 n. 30. Mourelatos refers to Schwabe, pp. 24–5 and 31–3.

[38] The text here is that of B 21 and B 26. In B 17 the line differs trivially at the beginning: ἀλλ' αὖτ' ἔστιν ταῦτα.

to the way streams (of water or of water and wine or even of lava [air and earth and fire?]) meet and flow together.[39] In the flowings or runnings together of the roots, new phenomena appear. As B 26.4–5 says: 'For these very things are, and running through each other they become humans and the kinds of other beasts' (*αὐτὰ γὰρ ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα γίνοντ' ἄνθρωποί τε καὶ ἄλλων ἔθνεα θηρῶν*). Here the contrast between genuine being or reality and phenomenal becoming is explicit through the use of both *εἶναι* and *γίγνεσθαι*; the 'becoming' is to be explained (through B 8 and B 11) as the result of the running together of the roots. But lest we think that the natures of the roots are altered in this process, B 17.34–45 serves as a reminder: 'but these very things are, and running through each other they become different at different times and yet are ever and always the same' (*ἀλλ' αὐτ' γὰρ ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα γίγνεται ἄλλοτε ἄλλα καὶ ἠνεκὲς αἰὲν ὁμοῖα*). Though the roots 'become' other things – that is, their mixture results in the mortal things enumerated in the lists and recipes that Empedocles provides – their natures remain unchanged.

B 21.13–14, the third repetition of the crucial claim that just the roots are real, may appear to challenge the unchanging natures of the roots: 'These very things are, and running through each other they become different shapes, †for the mixing changes them†' (*αὐτὰ γὰρ ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα γίγνεται ἀλλοιωπά· †τὰ γὰρ διὰ κρᾶσις ἀμείβει†*[40]). However we complete the end of the line, the claim that 'they become different shapes' is worrying. But note that it is the mixing that produces the different shapes – the roots themselves do not change shape (whatever that could mean). Rather, through their mixing they bring it about that there are new shapes, as in B 33: 'as when *ὀπός* (the sap of the fig tree) has bolted (*ἐγόμφωσεν*) pale milk and bound it.' This wonderful example describes how two liquids, running through each other, become coagulated and produce a solid, cheese, that is a different shape and character from the beginning ingredients and yet is produced simply by mixing them. As Wright says, we do not know the context from which Plutarch tore the fragment, but she proposes that his use of it to illustrate genuine friendship as opposed to *polyphilia* suggests that 'it belongs in the general context of Aphrodite's work on the elements to produce specific compounds.'[41] Whatever Empedocles' specific use of this claim, it illustrates how something apparently new and quite different from the roots can result from their mixture. Further, the various permanent characters of the roots must play a role in the properties of the various things constituted by the mixtures. Lines B 17.27–9 show that the none of the roots has priority (in any sense) over the others, and that each has its own particular nature or character: 'For all these are equal and of like age and origin, but each has a different prerogative and each its own character (*τιμῆς δ' ἄλλης ἄλλο μέδει, πάρα δ' ἦθος ἑκάστῳ*) and they hold sway in turn as time goes around.' The different 'prerogatives and characters' of the roots come into play in the mixing. This is suggested by B 73 where Aphrodite is said to have 'moistened earth in rain [and] gave it to quick fire to harden.' Fire is here part of the mixture as an agent of strengthening (as phenomenal fire hardens pottery in the kiln), and Simplicius suggests in his discussion of Empedocles on bone (B 98 – *In De an.* 68.2–14) that bone is four parts fire to two each of earth and water 'because of their dryness and white color.'[42] A similar reliance on the basic characters of the roots might

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[39] These three lines are not the only occurrences of *θεῖν* in Empedocles: in B 53 air 'happened to run this way' – so the verb may well be Empedocles' term for the motion of the roots in their pure state (though we must be careful not to impute natural motion to them).

[40] The last part of the line is corrupt. Numerous suggestions have been made. I follow Wright (as does Inwood). See Mourelatos, 1987, p. 179, p. 71; and Wright, 1981 p. 179, for reasons to reject Diels' emendation.

[41] Wright, 1981, p. 222; see also her discussion of the fragment. Barnes is probably correct to translate the end of B 21 (in his collection of Presocratic texts) 'for the mixture interchanges them.'

[42] It may be worth noting that Simplicius claims that 'Nestis' in B 96 accounts for both water and air. Perhaps he could not see that Empedocles did not need to have all four roots in every compound. For

be implicit in B 34: 'he glued barley meal with water.' Although we are here dealing with phenomenal objects, the phenomenal barley meal and water will react on each other as they do because of the basic characters of the roots that mixed to form them. As we saw, some of these characteristics are alluded to in B 21, and Empedocles clearly thinks that phenomenal objects have their characters because of their ingredients and the ratios in which they are mixed.

Empedocles gives an illustration of the process of mixture that he means to adopt; unfortunately, the example is itself fraught with controversy. This is B 23, in which the mixture of the roots to form different things is illustrated by the actions of artists:

> Just as when painters adorn votive offerings –
> men well taught by cunning in their craft –
> who when they take the many colored paints in their hands,
> mixing in harmony more of these but less of those,
> out of them make shapes resembling all things,
> bringing into being trees and men and women
> and beasts and birds and water-nourished fish
> and long-lived gods best in honors. (B 23.1–8)

Simplicius quotes B 23 immediately after B 21 with its claim that the running through each other of the roots produces different appearances. Simplicius says that Empedocles 'offers a clear example of different things coming to be from the same things' (*καὶ παράδειγμα δὲ ἐναργὲς παρέθετο τοῦ ἐκ τῶν αὐτῶν γίνεσθαι τὰ διάφορα* – *In Ph.* 159.27–8). He then quotes B 23. The point of B 23 is clear enough. Painters mix their (limited number of) pigments in various proportions and so are able to produce 'forms resembling all things' (and here the same list as in B 21 is produced: trees, men, women, beasts, birds, water-nourished fish, and long-lived gods); this is supposed to be exactly analogous to what happens when the four roots mix in varying proportions. A limited number of colors produces 'all things'; similarly, a limited number of roots is the source of all natural things. But if we expect this fragment to make clear the mechanics of mixture for Empedocles – suspension or mosaic-type mixture, 'fusion' or the formation of genuine chemical compounds in the modern sense, or something else – we will be disappointed. For there is much debate about the methods of painting used in Empedocles' time, and I am not sure that the difficulty can be resolved. Wright suggests that the 'mosaic' method is the right one, arguing that painter applied thin washes of color over one another or put down streaks of pigment next to each other to form images. This suggests a 'suspension' model of mixing. Mourelatos rejects Wright's analysis, arguing that Wright's claim that all the colors were ready beforehand is inconsistent with the text and that her view 'goes against the rather emphatic staging of the painter's acts conveyed by the verb forms' in the fragment. But Mourelatos agrees that whatever method of painting Empedocles was referring to (and taking as obvious that his readers and hearers would understand), 'Empedocles cannot countenance in his system any case of *real* blending or fusion.'[43] One might wonder whether Empedocles would offer as an example of his technical notion of mixing a method of painting that requires real blending if, as is clear, real blending in the sense that Mourelatos means it is ruled out by his metaphysics. Mourelatos is surely right that the focus of the fragment is on how a limited number of colors, however mixed, can produce all the hues that are necessary to reproduce in the image all the wonders that the mixing has produced: men, women, beasts, fish, and gods.

What is missing from B 23 is any indication of how the original pigments can be retrieved from the mix. But this is surely crucial to understanding Empedocles' mechanisms. For it is

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discussion of the identifications of the roots with various divinities, see Kingsley, 1995. But see also Mansfeld's response (1995) to Kingsley's suggestions.

[43] Mourelatos, 1987, p. 141 n. 15. Wright's discussion is on pp. 38–9 of her 1981.

vital, not only to his cosmic cycle, but also to the metaphysical foundations of his theory, that the roots that mix to produce mortal things must also be able to unmix, and must be separable in a way that allows the roots to have a continuous history and to be unchanged in their natures. Not surprisingly, most of the surviving fragments that discuss separation deal with the action of Strife, but we should recall that Love, as attracting unlikes to unlikes, is also a force of separation of like from like. Aristotle complains about Empedocles' account of what is apparently separation in *De Caelo* III.7. There, assuming that Empedocles embraces a theory that generates elements from one another (as Aristotle himself does), he asserts that this generation is missing from Empedocles' account:

> It escapes the notice of those who follow Empedocles and Democritus that they do not make them [the elements] come to be from each other but rather produce the appearance of generation; for they say that each, being present, separates out, just as if coming-to-be were from a vessel but not from some matter (*ὥσπερ ἐξ ἀγγείου τῆς γενέσεως οὔσης ἀλλ' οὐκ ἔκ τινος ὕλης*), nor that coming-to-be is a changing. (*Cael.* 305b1–5)[44]

Of course, this is exactly what Empedocles needs to say, and does say, and I suspect that it did not escape his notice (after all, B 9 explicitly denies that coming-to-be and passing-away are real and identifies them with the combination and separation of the roots). B 17 claims that the coming-to-be of one thing through mixture is the passing-away of another through separation. At lines 3–5 this double coming-to-be and passing-away of 'mortal things' is discussed explicitly: 'there is a double genesis of mortal things and a double waning; for the coming together of all things brings forth and destroys the one, while growing apart again, the other was nourished and flew away' (*δοιὴ δὲ θνητῶν γένεσις, δοιὴ δ' ἀπόλειψις· τὴν μὲν γὰρ πάντων σύνοδος τίκτει τ' ὀλέκει τε, ἡ δὲ πάλιν διαφυομένων θρεφθεῖσα διέπτη*). The compressed state of the lines should not disguise the fact that mixture and separation are reciprocal processes that occur at the same time. The roots, the ingredients of the mixtures, are separated out in the (apparent) death of a mortal thing and reused in a new mixture that gives (apparent) birth to a new generation or a new type of mortal.[45] As B 13 makes clear, Empedocles' *kosmos* is a plenum, and so it would seem that the breaking up of one arrangement, a mortal thing, would be the cause of a new arrangement and thus constitute the coming-to-be of yet another mortal thing.[46] B 20 gives more examples of local separation: the process of disintegration is the same for bushes, fish, beasts, and gulls. The lines in B 17 indicate that when a mortal is disintegrated through the force of strife, the resulting parts are just the roots that went into the thing, ready to be recombined into yet another mixture.

The clearest example of the need for separation into the original ingredients is Empedocles' account of the mixture of the roots in the Sphere and their (unchanged) reappearance once the Sphere has been broken up by Strife. But each mortal mix is itself a miniature example of the Sphere: in mortal things the roots are mixed in such a way that they usually or for the most part disappear and then they reappear at the death of the mortal, ready to mix and separate again as Love and Strife tug them about in the long cosmic cycles.

That the roots remain just what they are in the Sphere is a controversial claim, and has against it the authority of both Aristotle and Philoponus. I will not repeat arguments I have given elsewhere about the roots and the Sphere.[47] Instead I shall simply assert that I think

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[44] See also Philoponus *In Ph.* 88.11–23: the roots are squeezed out from each other as one shoots the seed of fruit from between the fingers.

[45] Thus there is a double double tale: not only is the birth and death of a mortal thing a double tale to be told, there is also the 'big double story' of the cosmic cycle as a whole.

[46] B 13: 'for none of the whole is empty or excessively full.' This gives bite to Melissus' arguments against rearrangement in 30 B 8.

[47] See Curd, 1998b, pp. 160–4.

Aristotle and Philoponus have gotten Empedocles wrong. Aristotle has been misled by thinking that Empedocles' roots have *differentiae* just as his elements do, and that in going into the Sphere the roots lose their *differentiae*.[48] But were they to lose their natures in the Sphere they themselves would become 'mortal things'; ceasing to exist as themselves in the Sphere and coming to be anew after the episodes of the Sphere. I have argued that the roots should be conceived of as having a semi-particulate structure. By 'semi-particulate' I mean that they occur in small parts – but there is no particular shape or size that each small bit of a root must be.[49] The roots are not atomistic, and there is no lower limit on the possible size of a bit of root (see Aristotle *GC* 325b6–7 and *Cael.* 305a1–4).[50] 'Particulate' may not be the best term here, but it will have to do for the moment; the roots might be liquid or paste-like.[51] This would allow for exactly the sorts of mixtures and separations that Empedocles needs. Consider for a moment the claim of B 98 that blood 'and other kinds of flesh' are all concocted out of equal parts (more or less) of all four roots. Earlier, it had seemed that this was a rather mysterious and imprecise recipe. Imprecise it may well be, but it need not be mysterious.[52] The different kinds of flesh (mammalian *vs.* reptilian, for example) may be the result of the degree of mixing of the roots. That degree of mixture could be governed by the size of the various bits of root in the mix. Just as adding unchopped raisins and walnuts to a cake will produce textures (and thus a different type of cake) that differ from those resulting from the addition of same ingredients (in the same ratio) pulverized in a food processor, so the same four ingredients, in the same one to one to one to one ratio, may produce different kinds of flesh because of differing degrees of mixture made possible by the various local sizes and densities of the ingredients themselves. Consider two isomers: these are two or more chemical compounds that have the same formula, and so contain the same 'elements' in the same ratios in Empedoclean terms, but have different chemical properties: for instance, ethanol (CH_3CH_2OH) and methyl ether (CH_3OCH_3). The differing degrees of mixture will also depend on the local strengths of Love and Strife at the particular moment in the cycle. Most certainly Empedocles' mixtures are not homoeomerous. Thus, Aristotle's complaint in the *GC* that Empedoclean 'mixtures' are merely *suntheseis* and not genuine mixtures both loses and gains force. It loses force as an objection to what Empedocles was actually doing; for Empedocles would not have been worried if *his* mixes failed to produce Aristotelian homoeomers. But it gains force as a way to understand what Empedocles was claiming. The famous assertion in *GC* II.7 that for those who argue as Empedocles does, things will come to be as a wall comes to be out of bricks is exactly right. For, as we know, on this model, not only does a wall come to be out of bricks, but different sizes and colors of bricks in different ratios and arrangements produce different kinds of walls (Flemish bond *vs.* monk bond or English bond, for instance, in the laying of bricks for walls of buildings, or serpentine Jefferson walls *vs.* the more usual way of constructing brick garden walls). Moreover, the

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[48] For Aristotle these *differentiae* constitute the essences of the elements.

[49] The opening lines of B 22 might suggest that such an account of the roots cannot be maintained. B 22.1–2 says 'For they are all united with their own parts – sun and earth and sky and sea.' This might suggest that a root cannot be divided into parts; and after all, Parmenides himself says that what-is is not divisible. But the next lines of B 22 show that the parts can be divided from each other in the coming-to-be of mortal things, and are reunited as those mortal things decay through separation. Parmenides' rejection of divisibility, is, I think, a rejection of a claim that different parts or aspects of what-is can have different characters or structures. Empedocles would surely agree with this; all of fire is alike in its character as fire, and the same for the other three roots. That it occurred in particles or in droplets would have no effect on the metaphysical character of a root.

[50] This makes Empedocles' theory vulnerable to Zeno's arguments about division, and particularly to Zeno B 3 and to the so-called 'Porphyry Argument' (given by Simplicius at *In Ph.* 139.27–140.6).

[51] So something like Graham's Anaxagorean 'droplet' might also do for Empedocles. See Graham, 1994.

[52] See Solmsen, 1960, on this fragment.

process is reversible, and bricks can come to be out of the wall. This is what Empedocles needs if his physics is not to contradict his metaphysics.

3 Mixture and Separation in Anaxagoras

Empedocles focuses on mixing as the replacement for coming-to-be, and in the extant fragments he says little about separation and the retrieval of the original ingredients or roots from the mixture. With Anaxagoras the case is reversed: he has much to say about separation, but he is nearly silent about mixture – at least in the fragments that have survived.[53] This is in some sense understandable, because what seems to have been of most interest to those who quoted and discussed Anaxagoras was his claim that 'all things' were in the original mixture and that, through the operation of *Nous*, a rotation began that gradually separated out the *kosmos* as we now know it from that original mixture. On this model, separation is, perhaps, the more intriguing process, particularly given the claim that the original mixture contained 'all things.' But if we explore further we see that mixing and compounding are equally crucial processes in the Anaxagorean system.[54] For instance, in B 4a Anaxagoras says that 'in all things that are combining' (*ἐν πᾶσι τοῖς συγκρινομένοις*) there are 'many things of every sort.' In the next lines of this fragment Anaxagoras discusses the compounding (*συμπαγῆναι*) of human beings. This process, however we conceive it, seems to be the referent of B 17 where the term is *συμμίσγεσθαι*. Here I will bypass discussion of what the *chrêmata* in Anaxagoras actually are. I take '*chrêmata*' in a fairly wide sense, and do not restrict Anaxagoras' metaphysically basic entities to the opposites. But no matter what we take the *chrêmata* to be, mixing is as important as separation in Anaxagoras' theory.[55]

Although Anaxagoras insists that nothing altogether new can come into being, if by coming-to-be we mean the *genesis* of an entirely new thing out of nothing, he also recognizes that phenomenal entities can grow or can even be put together out of genuinely real components. For instance, although hair cannot come from what is not-hair, or flesh from what is not-flesh (B 10), the addition of hair to hair or flesh to flesh through nutrition and growth would seem to be a process of mixing. And this mixture-based explanation of growth by addition would also explain what happens in the transformation of seeds into full-blown organisms. Transformation here is not merely enlargement, so, for example, the seed of a dog does not have to be a minuscule dog. The seed may just be something like a biological beginning point, or a basic growth point.[56] The Scholiast on Gregory of Nazianzus says that in the seed there are 'hairs and nails [or talons or hoofs: *ὄνυχα*] and veins, and arteries (*ἀρτηρίαι*), and sinews, and bones; these are invisible on account of their smallness'[57] and says that these separate as the organism

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[53] Anaxagoras' lack of specificity about mixture has led Furth (in his 1991) to claim that B 17 (in which Anaxagoras asserts that coming-to-be is to be explained away through mixture) is at best confusing (because it conflates the original mixture with local mixtures) and at worst a straight contradiction with other claims that Anaxagoras makes. I do not think that Furth's analysis here is correct. B 4a seems to indicate that there is a process of mixture to which B 17 refers. I suspect that the main cosmic rotation initiated by *Nous* will produce local swirls and eddies that will result in mixtures as well as separations.

[54] It is worth keeping in mind Mourelatos' claim about Anaxagoras' use of words from the *mig-* root (see above, p. 148). This use would indicate that Anaxagoras treats mixtures as compounds that can be separated into the original components or ingredients.

[55] Mixing is particularly important on those accounts of Anaxagoras that restrict the *chrêmata* to a fairly narrow range, but it must play a role in any case.

[56] See Furley, 1989, and also Graham, 1994, on this point. For a discussion of views about the seeds, see Teodorsson, 1982, pp. 45–64, 80, and 89–91. See also Mourelatos, 1987, pp. 155–7.

[57] This claim seems to be an echo of B 1's assertion that nothing was clear because of smallness.

grows. Then follows the claim that has come down to us as B 10: 'for how, he says, can hair come from what is not hair, and flesh from what is not flesh?' There has been some debate about the authenticity of B 10, but it is clear, I think that we should take it either as genuine or as paraphrasing a genuine Anaxagorean claim.[58] But it is unclear how much of the surrounding context we should take as an accurate report of Anaxagoras' views about the seeds.[59] For the surviving fragments say little about the seeds.

Anaxagoras says in B 4a and B 4b that there are 'seeds of all things having shapes [or forms] and colors and savors of all sorts' (*σπέρματα πάντων χρημάτων καὶ ἰδέας παντοίας ἔχοντα καὶ χροιὰς καὶ ἡδονάς* B 4a) and that the ingredients of the original mix included 'seeds unlimited in number, in no way resembling each other' (*καὶ σπερμάτων ἀπείρων πλῆθος οὐδὲν ἐοικότων ἀλλήλοις* B 4b). These claims might indicate that the seeds are nothing more than biological seeds or originating points that might include minute portions of the ingredients needed to make the organism grow in the proper way. They need not be smaller versions of what they are to grow into.[60] The Scholiast acknowledges that there was an original mixture, but he apparently regards separation as Anaxagoras' only mechanism, once the rotation has been begun by Mind. But the separating out of the ingredients in the seeds is partially a consequence of the growth of an organism. This growth is by accretion or addition, that is, by a process of adding to or compounding of the thing, and this is a form of mixture. Thus Anaxagoras can say in B 4a that once the ingredients are separated out of the mix they are combined in appropriate ways to produce the various things that make up the *kosmos*. Like Empedocles, Anaxagoras sees that mixture is the reverse side of separation. In a plenum, the rearrangement that results from separation will result in a new mixture. This awareness can be seen in the use of *συγκρίνειν* in B 4a and *προσκρίνεσθαι* in B 14, mirroring the uses of *διακρίνειν* and *ἀποκρίνειν* throughout the fragments.[61] When something separates out, it associates with something else – even if what it associates with is more of itself, as when land masses emerge from the cosmic rotation, or a sea is formed by rivers emptying into it.[62]

Thus, it is not just organisms that grow or emerge by mixture. In the development of the various aspects of the *kosmos* – land masses, seas, and so on – mixture will also play a role. When Anaxagoras describes the formation of cosmic features in B 12, B 14, B 15 and B 16, the separation throws out things that congregate or mix together, like with like, apparently. Thus in B 15 Anaxagoras says that the earth comes to be 'here' where the wet and the cold and the dark came together (*συνεχώρησεν*), and in B 16 (a discussion of cyclical patterns of change) he claims that stones are put together (compacted) from earth by cold (*ἐκ δὲ τῆς γῆς*

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[58] For doubts about the authenticity of B 10, see Schofield, 1975; by the time of his 1980, Schofield had softened his views, acknowledging that B 10 and the Scholiast's theory of growth, 'may be based in part upon his own consultation of Anaxagoras' book' (1980, p. 140).

[59] The presence of *ἀρτηρία* in the passage is evidence that the Scholiast is making a claim of his own that might not be supported by Anaxagorean theory. LSJ claim that the meaning 'artery' appears 'only in late writers' – but earlier uses meaning 'windpipe' are attested. The conjunction '*καὶ φλέβας καὶ ἀρτηρίας*' suggests the meaning 'artery' here, but this is a slender thread on which to hang a claim about the context of the fragment.

[60] Mann rejects this view of the seeds, for, according to him, 'consistency requires that the seeds of men be homunculi' (1980, p. 236) but he seems to have underestimated the role of mixing or compounding in Anaxagoras. Mann takes the homunculi requirement as a *reductio ad absurdum* of the biological interpretation of seeds. According to Mann *chrêmata* must both be eternal and satisfy his interpretation of homoeomereity. (On the claim that Anaxagorean chrêmata must be homoeomerous, see n. 31 above.) On The hokunculus view of seeds, see now Lewis, 2000.

[61] *Προσκρίνεσθαι* here surely means 'associating together' as Barnes, Strang, Sider and Schofield take it to mean, not 'previously separated' as Freeman has it. See Sider, 1980, pp. 112–13.

[62] This aspect of the theories of both Anaxagoras and Empedocles is noted by Bargrave-Weaver, 1959.

λίθοι συμπήγνυνται ὑπὸ τοῦ ψυχροῦ) after earth is separated from water.[63] In one of his discussions of Anaxagoras, just before quoting B 16, Simplicius explicitly mentions compounding:

> And he says that these beginning and simplest things (ἀρχοειδῆ καὶ ἁπλούστατα) are separating, but that others, more compound than these (τούτων συνθετώτερα) he says are sometimes compacted as compounds (συμπήγνυσθαι … ὡς σύνθετα) and sometimes separate off as does earth. For he says … [and here follows B 16]. (Simplicius *In Ph.* 179.6–8)

Simplicius contrasts these compounds with the simpler things that emerge from the original mixture, and I think, suggests that the 'more compounded' are in some sense made from the simples.

Like the mixtures and separations of Empedocles, the mixtures and separations in Anaxagoras must be in principle reversible. If there is a mixture that produces wheat, and the materials in wheat can be components of blood and bone such that the eating of wheat can be nutritious and account for growth, those elements must separate from the temporary mixture that is wheat and combined with bone in the process of nutrition (so that a human being can be 'compounded' as B 4a claims). Then, when the wheat-eating organism dies, its components must separate out and thus become re-mixed with the surroundings, ready to separate and mix again as the cycles of life and cosmology continue. In considering Anaxagoras, it is tempting to see the mixtures and compounds as suspensions.[64] That model certainly allows for the necessary separations and recombinations (to say nothing of the more difficult problem of 'everything in everything' – an issue that I have not discussed here). That model not only makes sense of Anaxagoras' physics, it does so in a way that is consistent with his metaphysics and allows a changing *kosmos* to be consistent with unchanging, genuinely real metaphysically basic entities. Moreover, it seems to me a bonus that the processes of mixture and separation in Empedocles and Anaxagoras turn out to be roughly similar on the accounts that I have given here. After all, both are explicit about their acceptance of Parmenidean principles, and they seem to conceive of the proper solution to the problem of rational cosmology in similar ways. Where they differ is in the number and nature of their starting points, and in the character of the forces at work in their *kosmoi*. There is also the difference that Empedocles posits cycles in the universe while Anaxagoras apparently does not. But these are differences in scientific details, not in metaphysical outlook. On the issue of harmonizing metaphysics and physics, Empedocles and Anaxagoras are in wholehearted agreement.

4 Concluding Remarks: Problems for Presocratic Mixture and Separation

Because Empedocles and Anaxagoras have similar accounts of how physics can be metaphysically well-grounded, it is perhaps not surprising that their theories are beset by similar problems. Despite the sometimes intentional language in which Empedocles describes the activities of Love and Strife, and despite Anaxagoras' reliance on *Nous*, both systems are basically mechanistic. There are a number of things missing from such theories, as later philosophers (notably Aristotle) have pointed out. In conclusion I raise two problems for Empedocles and Anaxagoras.

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[63] Compare with συμπαγῆναι in B 4a. Stokes, 1965, and Schofield, 1980, take B 16 to be meteorological, but I do not see that it cannot also be cosmological. In either case, the important point is that we have mixing or compounding playing a role as important in Anaxagoras' system as separation. B 16 is taken as cosmological by Bargrave-Weaver.

[64] Just as Graham, 1994, suggests.

First, there is the problem of structure.[65] Not only is there the question of how structure emerges from mixture and separation, but there is also the question of how structures are maintained. Empedocles' fragments mention both bolts and glues, and B 33 indicates how he might have conceived of the process of maintaining structure. But the issue is more complicated than the solution in B 33 suggests; a reference to cheese-making cannot serve as an account of the coherence of the structure of a human being or of a plant. Heraclitus' *kukeôn* shows in a particularly dramatic way that suspensions are unstable. This is why the model of suspension is a good one for a theorist who needs the same ingredients that go into a mixture to emerge from it. But any such theory needs some account of why different mixtures stay together in a stable manner for different amounts of time. If a human being is just (as it were) a complex *kukeôn*, how do we explain the process that holds it together in a systematic way? Both Empedocles and Anaxagoras might try to solve the problem by appealing to the intentional aspects of Love and Strife, or to the knowledge of all things that *Nous* has, but these are merely the beginnings of an answer, and there is nothing in the extant fragments or testimonia that would serve to fill out and complete their accounts.[66]

The second, and final problem is what I shall call 'repeatability.' If the processes at work are simply mixing and separating, why is there so much regularity in the *kosmos*? Why do biological processes remain as stable for as long as they do? Even if we grant Empedocles the oddities of neckless heads, roaming eyes, and unshouldered arms (see B 57), man-faced oxen or ox-faced man-forms, and the like (B 61), we are still faced with the problem of regularity over many generations. What accounts for this on the mechanistic theories that Anaxagoras and Empedocles adopt? (This is also a problem for Atomism, a point Aristotle never tires of making.) Mixture and separation by themselves cannot solve this problem. As almost all undergraduates studying the Presocratics can point out, what we need is a mechanism of repeatable structure, be it Platonic Demiurge and Forms, Aristotelian souls, or DNA. Love and Strife, as Empedocles describes them, cannot provide the answer, and while *Nous* might do so for Anaxagoras (as Plato suggested), he seems not to have availed himself of this opportunity (as Plato pointed out). I conjecture that the seeds of Anaxagoras B 4 might contain part of the answer. If they are biological growth-points, they could contain within themselves principles of both structure and repeatability. Why is there not more awareness of the repeatability problem in Anaxagoras and Empedocles? I suspect that it is because they rely on mixing and separation alone to account for apparent coming-to-be and passing-away. That reliance stems from the metaphysical requirements on their physical theories that both Empedocles and Anaxagoras adopt from Parmenides. Their task was to account for the multiplicity of change in the world reported by the senses while staying within metaphysical boundaries set by Parmenides. So the need was not just to account for phenomena; were the phenomena the only data set they needed to explain, structure and repeatability would seem to be high on the list of riddles to solve. But the problem set they faced included not just questions about the details of the *kosmos*, but stringent theoretical requirements from Parmenides for constructing a philosophically adequate account of the natural world. Their acceptance of those requirements and the attendant problems can serve as a warning that a metaphysical framework is no substitute for a fully worked-out physical theory. Metaphysics does not entail any particular physical theory; rather it controls what theories are admissible. So, there is still much unfinished business for a rational cosmologist, even after a metaphysical system has been adopted.[67]

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[65] For a definitive discussion of the problems of structure in Presocratic theories, see Mourelatos, 1987.

[66] Anaxagorean seeds may be the clue to solving this problem with respect to organisms. But given that there are only two mentions of seeds in the extant fragments, one cannot be certain of how they functioned in Anaxagoras' theory.

[67] Earlier versions of this paper were presented at the Twenty First Annual Workshop in Ancient

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Chapter 12

Democritus and Xeniades[1]

Jacques Brunschwig

We know very few things about the thought of Xeniades of Corinth. But we do know that Democritus 'refers to him' (Sext. Emp. *M.* 7.53), which simultaneously gives us a *terminus ante quem* for dating him approximately and a good reason for us to be interested in him today. Sextus Empiricus, who mentions him seven times,[2] is the only writer who informs us of Xeniades' philosophical views. Diogenes Laertius also speaks of a Xeniades of Corinth who bought a rather unusual slave, Diogenes the Cynic, and found it to be well worth it (6.30, 31, 36, 74, 82). It is plausible that the same person is at issue, but it is not certain.[3]

As regards Xeniades' ideas, one of the passages from Sextus (*M.* 7.53) is more instructive, taken on its own, than all the rest. Xeniades is cited there, in the company of many other thinkers, as having denied the existence of a criterion of truth. Here is a translation of what Sextus says on the matter:

> Xeniades of Corinth, to whom Democritus refers as well, (i) says that all things (πάντα) are false, (ii) that every representation (φαντασία) and every judgement (δόξα) are in error (ψεύδεσθαι), (iii) that everything that comes to be (γινόμενον) comes from non-being (ἐκ τοῦ μὴ ὄντος), and (iv) that everything that perishes vanishes into non-being.

The four theses, numbered in this translation, can easily be regrouped in pairs, though not in exactly the same way. Thesis (i) is a completely general statement, which thesis (ii) aims to make more explicit its details, in a vocabulary unlikely to belong to Xeniades himself (notably, the word '*phantasia*');[4] even if it does involve a subsequent explanatory gloss, the basis of the report does not to that extent become suspect and we can assume that Xeniades maintained thesis (i) in some form at least, that is, a kind of epistemological nihilism. Theses (iii) and (iv), on the other hand, do not have the same sort of relation to each other. They are two halves,

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[1] The editors, Victor Caston and Daniel Graham, kindly invited me to offer a contribution to this Festschrift in honor of A. M., a great scholar whom I admire and a good friend of whom I am very fond; but unfortunately, my health at the time prevented me from accepting this invitation, against my wishes. Not to be dissuaded, the editors suggested that instead they could include an English translation of this article, which was originally presented at the International Congress on Democritus in Xanthi (1983), where A. M. was also present. Thanks to them, I am able to offer this paper, for what it is worth, to A. M., with great pleasure and gratitude.

[2] *P.* 2.18, 76; *M.* 7.48, 53, 388, 399, 8.5.

[3] A. N. Zoumpos has insisted that the two are in fact the same, with powerful arguments (Zoumpos, 1960, p. 16). If one and the same person is at issue, Democritus can only have learned of him towards the end of his long life. Indeed, the Xeniades of whom Diogenes Laertius speaks entrusted his children's education to Diogenes the Cynic and so must be nearly his contemporary, which would place his birth around 410, whereas Democritus was born about 460. On the other hand, it is known to be fairly commonplace for a grandfather and grandson to have the same name; hence, one cannot entirely abandon the hypothesis that the Xeniades Sextus speaks of is the grandfather of the one Diogenes Laertius speaks of. In that case, the former would be a contemporary of Democritus.

[4] Cf. K. von Fritz, 1967, coll. 1438–9.

symmetrical and complementary, of a single ontological thesis, which makes non-being the origin of all coming-to-be and the terminus of all passing-away, thus assigning it the status of an *archê*, as defined since (perhaps) Anaximander. So we may say, at least provisionally, that Xeniades juxtaposed an *epistemological nihilism* and an *ontological nihilism*.

The present study consists of three parts. In the first, I shall attempt to show that the slim doxographical file on Xeniades can be enlarged with the addition of an intriguing item. In the second, I shall ask if there exists a connection (and if so, of what sort) between his epistemological nihilism and his ontological nihilism. Finally, in the third, I shall try to show what it is about Xeniades that might have interested Democritus and why.

I

In compiling Xeniades' doxography, scholars up to now have retained only the text translated above (DK 81, vol. 2, p. 271). Unaware of a line of reasoning that could support the Corinthian's theses, historians have remained uncertain, and even skeptical, when confronted with Sextus' testimony. It did not occur to them to take advantage of section 7.54, where Sextus plainly continues to speak of Xeniades, since he is just about to pass on to the examination of another thinker. At this point, he makes two comments, both of which concern Xeniades' epistemological thesis. But these comments do not have the same status. The first is intended to show that Xeniades' view is 'virtually the same as Xenophanes.' That is, in light of the interpretation Sextus has just given to Xenophanes' fragment DK 21 B 34, Xeniades' view amounts to a denial of the existence of a criterion of truth: 'in fact,' Sextus writes,

> if there isn't anything true that differentiates itself from the false, and if everything is false and thus unknowable (*ἀκατάληπτον*), there will no longer be any criterion to distinguish between them.

It is an *interpretative* comment, by means of which Sextus justifies including Xeniades along with those who reject a criterion and which does not, by his own light, have evidentiary value. On the other hand, the second comment furnishes us with an argument in favor of thesis (i):

> Now (*δέ*), the fact that everything is false (and so unknowable)[5] is shown (*δείκνυται*) by starting from the disqualification (*διαβολή*) of perceptions. If, in fact, the highest criterion (*ἐπαναβεβηκός*) of all things (*πάντων τῶν πραγμάτων*) is false, necessarily everything (*πάντα*) is also false. Now perceptions are the highest criterion of all things and it has been shown (*δείκνυται*) that they are false; therefore, all things are false.

It seems to me fairly clear that this argument stems from the same source – about whose identity I will not speculate – as that from which Sextus acquired his knowledge of Xeniades' views; and that this source attributes the argument to Xeniades himself, if not explicitly, then at least in substance. In fact, it is an absolutely unique argument, which does not, to my knowledge, occur in any of the truly numerous passages where Sextus compiles objections against the validity of sensory evidence. If he did not think the argument belonged to Xeniades, he would

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[5] The Greek expression corresponding to this parenthetical remark should perhaps be excised from the text, where it might have been introduced by parallelism with the preceding passage. The latest mss (*ABVR*) add still further after this parenthetical remark (again out of a concern for parallelism with what precedes) the words *οὐδὲ διακριτικὸν τούτων ἔσται κριτήριον* ['and there will not be a criterion that can discriminate between these either'], which modern editors (Mutschmann, Bury) are right not to retain. The parenthesis that concerns us might constitute the first layer of excess sediment deposited onto the original text.

not have any compelling reason to introduce it in just this stretch of text; and if he had felt the need to introduce an argument here in favor of Xeniades' epistemological thesis, without having found it in the source from which he learned of the thesis, he would not have had any compelling reason to produce an argument here that he does not mention anywhere else at all. We may thus conclude, with due caution, that there are just as many reasons to attribute this argument to Xeniades as there are to attribute to him the thesis that the argument supports.

The argument in question, which is both original and interesting, is worth pausing over a little. It consists of three premises, of which one is conditional; the other two permit, by syllogistic derivation, the assertion of the antecedent and therefore its detachment by *modus ponens*. Here are the premises:

1 If the highest criterion of all things is false, then all things are false.
2 Perceptions are the highest criterion of all things.
3 Perceptions are false.

From (2) and (3), one obtains

3′ The highest criterion of all things is false

from which it follows that

4 All things are false.

With regard to its substance, the essential problem is to give a plausible sense to the expression 'highest criterion of all things,' and to understand how it can be said simultaneously that perceptions are that criterion (2) and that they are false (3). I initially tried maintaining that the word κριτήριον was to be taken in the sense of 'criterion of truth.' Xeniades would then begin by conditionally attributing the status of criterion of truth to perceptions, only to withdraw it from them categorically afterwards, in line with the following strategy: (a) if anything has any chance of being a criterion of truth at all, it is perceptions; (b) but perceptions are not criteria of truth; (c) therefore nothing is a criterion of truth. Xeniades would have thus been the inventor of a perfectly respectable argument schema, one which was clearly identified by the ancient theory and practice of argument[6] and which certain modern logicians are still interested in today.[7] But I later abandoned this reading of the argument, which encounters decisive objections. In the argument reported by Sextus, the property of being the 'highest criterion' is in fact attributed to perceptions categorically, and not just conditionally (2). It is necessary, therefore, that this attribution be compatible with the assertion, equally categorical, that perceptions are false (3); and it is necessary that the implicit premise (3′), according to which the highest criterion is false, be exempt from internal contradiction. These conditions are obviously not satisfied if by 'highest criterion' one understands a criterion of truth. It makes sense, then, to look for another route.

Sextus customarily distinguishes between the notion of a criterion *tout court* and the notion of a criterion of truth – anything that is a criterion is not thereby a criterion of truth. A criterion is a power or instrument of judgment. We can have powers and instruments of this sort without that implying that the judgments they help us to adopt are true judgments; they can just be judgments that purport to be true. The notion of a 'highest' (or, if one prefers, 'final' or

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[6] Cf. Arist. *Top.* 3.6, 119b17 ff.; Sext. *M.* 7.411.

[7] Cf. Hilbert's ϵ operator, which represents, for a given predicate, the individual that exists, if there exists at least one individual to which this predicate belongs.

'ultimate') criterion presupposes that we have at our disposal a number of instruments of this type and that there is a hierarchy among them. But it does not imply that the one which is higher than the rest is the most trustworthy; it can signify simply that the others depend on it, while it does not itself depend on others. One could thus think that Xeniades' argument amounted to the following claim: the only *direct* reports we have about the world that surrounds us are those furnished by the senses; all the rest are *indirect* reports, which we obtain by working up the prime matter furnished by sensory reports. But this source of direct reports is systematically misleading. Therefore all of our reports are erroneous and all of our judgments false.

II

We are thus, according to Xeniades, in the position of a journalist all of whose reports issue from a bureau that never tells the truth; or, if one likes, we are the victims of a kind of evil demon of the Cartesian variety. How can we become aware of it, if we do not have at our disposal any independent power that would allow us to investigate and critique the reports we are issued? And how can we flatly assert that they are false? Sextus tells us nothing of the manner in which Xeniades established premise (3), that 'perceptions are false.' So strong a premise could not, however, rest on traditional observations concerning 'the errors of sense.' It is one thing to say that perceptions cannot always be considered as trustworthy; it is another to say that they ought not ever be.

We may have the means to fill this lacuna, however, by appealing to Xeniades' ontological thesis. So let us now turn to it.

In a general way, Xeniades obviously belongs to the generations of thinkers – both 'natural philosophers,' like Empedocles, Anaxagoras, Leucippus, and Democritus; and 'sophists' like Protagoras and Gorgias – who took part in the intellectual turmoil brought about by Eleaticism. Even though we cannot identify his exact location within this constellation, chronologically and intellectually, we can recognize in him a singular originality in any event. While all his contemporaries accepted the Parmenidian principle that nothing can come from non-being as axiomatic,[8] Xeniades calmly takes the opposite tack, by affirming that *everything* that comes to be issues from non-being. (There is no reason to think he might have just used this assertion as a step in a further argument to show that *nothing* comes to be.) Xeniades does not respond to Parmenides' challenge with an evasive strategy; he does not try to avoid the most paradoxical consequences of Eleaticism while preserving its fundamental principles. He confronts Parmenides directly: without taking the precautions Plato will in his supposed 'parricide,' he affirms purely and simply, and not merely 'in a certain sense,' what the Eleatic declared inexpressible and unthinkable. In so doing, Xeniades places himself beyond the fringe of the Preplatonic tradition. We do not have any way of knowing how he justified this eccentric position or even of making precise the exact sense he gave to it. For example, nothing allows us to specify whether he gave his assertion an existential sense ('what comes to exist arises from the nonexistent'); or a predicative sense ('what comes to be *F* arises from what is not *F*'); or again the two at once. One can nonetheless rest assured, at the very least, of a negative certitude. For Xeniades, it was clearly not a matter of rehabilitating a universe that, against Eleaticism, undergoes change and abounds in sensible appearances, since, far from having the slightest tolerance for perceptions, he thinks they are completely false. We are thus not in the presence of an effort to reject Eleaticism, feature by feature, as would be the case for example with a sensualism that sided with perception against the Parmenidean *logos*. Xeniades does not appear to have had an anti-

[8] On this point, cf. A. Mourelatos, 1981.

Parmenidean epistemology that would correspond, in a simple and direct way, to his anti-Parmenidean ontology. This reflection suggests that his ontological thesis and his epistemological thesis are related in a somewhat more complex fashion.

In trying to reconstruct how Xeniades might have understood this relation, one can without doubt appeal to an Aristotelian text (*Metaph.* K 6, 1062b21–33) that G. E. R. Lloyd has already linked, quite felicitously, to Sextus' report on Xeniades,[9] concerning why certain thinkers could go so far as to reject the principle of noncontradiction. It claims that the ban imposed by Parmenides on any *genesis* beginning from nonbeing made it hard to understand the extremely ordinary process by which a thing comes to be *F* from having previously been not-*F*. If one did not want to deny the reality of this process and yet at the same time wanted to respect this ban, one might reach the point of contesting the principle of noncontradiction, the author of Book K explains, by the following route: to avoid saying that what is (white) comes from what is not (white), one might think it necessary to say that a thing that has come to be white was, prior to the moment when it came to be white, at once white and non-white. Xeniades does not have the same problem, since, unlike the thinkers described in the Aristotelian passage, he accepts that being comes from nonbeing without flinching, for example the white from the non-white. But if he avoids having to posit a contradiction at the *beginning* of coming to be in this way, he is bound to posit a different one, symmetrically, at the *end* of this coming to be. For it is plausible to attribute to a Pre-Aristotelian thinker the following tacit premise: that out of which something has come to be whatever it has come to be is identical to that from which it is actually made. Original matter and constitutive matter are both covered by the formula τὸ ἔκ τινος,[10] and it is through Aristotle's efforts that one will distinguish at the beginning of coming to be the matter, on the one hand, that persists through the process and subsists once it has finished coming to be (the subject that comes to be white from non-white) and, on the other hand, the privation that does not persist or subsist at the end of coming to be (the non-white, which vanishes to make room for white). One can thus ascribe to Xeniades the following argument: (a) the non-white is that from which the white comes to be; (b) that from which a thing comes to be is identical with that out of which it is actually constituted; (c) the non-white is therefore that out of which the white is constituted. It follows from this that perception deceives us when it presents as white something that is made of non-white. A famous paradox of Anaxagoras (DK 59 A 97) illustrates this argument quite accurately and testifies to its plausibility in the historical context: snow consists of condensed water; yet water is black, and so snow is black. In other words: having been *made from* something non-white, it is *made of* something non-white.

To go from Anaxagoras' parochial paradox to Xeniades' global paradox, an additional premise is still needed, namely: everything that is *F* has come to be *F*. Such a premise is fairly easily attributed to Xeniades: if he confers the status of 'highest criterion' to perceptions, it is plausibly because he does not recognize any realities in principle other than realities that are perceptible, generated, and changing, which have come to be everything that they are or appear to be.

One derives a further interesting variant of Xeniades' thesis by interpreting it in an existential sense: every being is generated from nonbeing, and consequently it is made of this nonbeing from which it has been born. It is not certain whether Xeniades himself pursued this extension, which results in a kind of de-realization of the world. But one finds something that in fact approaches it in two figures that Sextus often mentions in Xeniades' company: Anaxarchus, who was affiliated with Democritus' school and a companion of Pyrrho's on campaign with Alexander; and the Cynic Monimus, who was an admirer of Diogenes, having heard his praises sung by the latter's patron, Xeniades of Corinth, either our philosopher himself or someone

[9] G. E. R. Lloyd, 1966, pp. 113–14.

[10] Cf. J. Barnes, 1979, vol. 1, pp. 39 ff.

with the same name (Diogenes Laertius 6.82). Both, according to Sextus (*M.* 7.88), compared beings to the decor of a theater, to a 'stage design,' and supposed that they resembled the images that present themselves in dreams and madness. According to Sextus (*M.* 8.5), Monimus always said that everything is an illusion or empty smoke (τύφος),[11] an expression that Sextus glosses in an intriguing way, when he says that the *typhos* consists in 'imaging the nonbeings as beings' (οἴησις τῶν οὐκ ὄντων ὡς ὄντων). An argument of the sort I have attributed to Xeniades might help them to provide a justification for what in these texts otherwise appears only as a feeling of irreality.

III

Let us return to Xeniades himself, in order to ask why Democritus might have been interested in him. If what I have said up to this point is not too inaccurate, it seems that Xeniades occupied an original position on the chessboard of Post-Parmenidean thought: by accepting generation *ex nihilo*, which Eleaticism bans, he ends up disqualifying perceptions no less than the Eleatics. That was a sufficient reason for his attracting others' attention. In the great intellectual turmoil provoked by Eleaticism, it was normal to glance over one's shoulder to see what sort of trouble one's neighbors found themselves in and which conclusions were arrived at by combining premises from the debates then on the agenda in different ways, or their negations. The route Xeniades explored could not have failed to strike others with its radicalism and eccentricity. But can one get beyond these generalities?

Sextus tells us that Democritus 'refers to' Xeniades. He does not tell us in what terms, or in what context, or even if it was in order to agree with him or to criticize him, or at what moment during his long life he became familiar with Xeniades' thought. Were his own thoughts already fully formed when this encounter came about (as would be the chronology, if our nihilist was none other than the patron of Diogenes the Cynic)? Or were they still taking form (in which case it would be necessary to imagine two distinct persons with the same name – see n. 3)? There is little possibility that these questions can be answered. One can nevertheless try to isolate, from the evidence concerning Democritus, possible echoes of an engagement with Xeniades.

We know that Democritus criticized Protagoras' thesis, against which he had developed – before Plato, it seems – the 'overthrowing' argument (περιτροπή). Formulated as 'all representations (φαντασίαι) are true,' the thesis seems to refute itself, provided there is an opponent to whom it appears false: 'if every representation is in fact true, then to say that every representation is not true, which is based on a representation, will be true; and so to say that every representation is true will turn out to be false' (Sext. Emp. *M.* 7.389–90, = DK 68 A 114). The inventor of this refutation could hardly have missed that Xeniades' thesis, according to which every representation is false, self-destructs even more expeditiously than Protagoras' thesis, since it is not necessary to appeal to the opinions of one's opponents. Either the representation 'all representations are false' is itself false; or it is true, and thus false, since there is at least one representation that is not false, namely, itself.[12] Despite their lack of symmetry, the two cases – Protagoras' and Xeniades' – are often brought together by Sextus, who claims that the two theses are 'equivalent' and considers the reasons why one must reject

[11] On this expression, see F. Decleva Caizzi, 1980a.

[12] The refutation of Xeniades thus possesses a logical advantage over the refutation of Protagoras. The latter establishes that Protagoras' thesis is false for the person (should there be one), who holds it to be false; it does not require Protagoras himself to acknowledge that his thesis is false, if he holds it himself to be true. On the other hand, Xeniades must acknowledge that his thesis is false if it is true, unless he introduces 'type' distinctions between representations.

them to be 'analogous.'[13] It does not seem rash to me to think that this assimilation derives from Democritus, who then would have 'referred' to Xeniades in the context of his criticism of Protagoras.

Prudence might urge us to be satisfied with that. Democritus would not in that case have exploited anything from his encounter with Xeniades other than the opportunity to round out his polemic against Protagoras elegantly, by turning it around against a thesis diametrically opposed to the great sophist's thesis. Two reasons, nevertheless, lead me to pursue the inquiry somewhat further: the place accorded to nonbeing in Democritus' ontology as well as in Xeniades'; and the place accorded to perception in the epistemology of the two thinkers.

On the first point, let us begin by noting the differences. Xeniades gives nonbeing, as we have seen, the status of an *archê*. By accepting generation *ex nihilo*, he can avoid having any other 'principle' and so advance the peculiar nihilist monism that he builds on this admission. Democritus, in contrast, retains the principle *ex nihilo nihil*; and so he needs two coeternal principles, the full and the void, which he does not shrink from calling 'being' and 'nonbeing,' as well as 'something' and 'nothing.' Common ground thus remains, at least formally: the μὴ ὄν is elevated to the rank of a principle, for one as much as for the other.

This, someone will say, involves the fundamental principles of atomism, which Leucippus had put forward before Democritus; and there is no reason to think Leucippus knew Xeniades, even if one adopts the earliest chronology for the latter. The question thus becomes whether in the strictly Democritean form of atomism there are elements that one could tie to Xeniades' presence in Democritus' intellectual landscape, as distinct from Leucippus'. A rash question, indeed: for there are precious few elements, at the level of principles, in the atomisms of Leucippus and Democritus that we are in a position to distinguish.

Nevertheless, reconsider the famous passage from Aristotle in which he sets out the genesis of Leucippus' system, without mentioning Democritus:

> Leucippus thought he had arguments that, completely in accord with perception, would not lead to the rejection of generation, corruption, movement and the plurality of beings. Conceding all that to appearances, while conceding to the partisans of the One that there could not be any movement without void, he says that the void is nonbeing and that no part of being is nonbeing; in fact, what is in the strict sense is absolutely full. But this full being is not singular, according to him; there is an infinite plurality of them, which are invisible due to the smallness of their mass. They move in the void (since there is some void). Their arrangements produce a coming-to-be, their dissociation a passing-away. (*Gen. et corr.* I.8, 325a23 ff. = DK 67 A 7)

I would draw attention to two features of this text. On the one hand, it is allegedly because of the need to be in accord with perception that Leucippus attempts to revise Eleaticism. On the other hand, his position does not seem very stable concerning the nature and extent of logical sacrifices that must be accepted in order not to be out of accord with perceptible appearances. Within an interval of several lines, these two propositions appear: 'the void is nonbeing' and 'there is some void,' the second slipped in discretely between parentheses. But nothing indicates whether the contradiction should be understood as real or merely apparent; and nothing indicates why a theory that contains this contradiction, real or apparent, should be preferred to a theory that contradicts the testimony of the senses.

Now, on these two points, Democritus appears to have been unburdened by Leucippus' scruples and reservations. On the one hand, it is unlikely he held being in accord with perceptions to be one of atomism's greatest advantages. Appeal to this kind of concern is hardly compatible with the division he sets up between perceptible qualities and physical realities (DK 68 B 9 and 125), any more than with the fundamental distinction he draws between perceptual and intellectual

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[13] Cf. *M.* 7.388, 389–90, 398–9. See already F. Decleva Caizzi, 1980b, esp. p. 403.

knowledge (DK 68 B 11). On the other hand, for him the existence of the void no longer seems to be a logical scandal, which one has to conceal or smuggle in. In coining the words δέν and μηδέν for the full and the empty,[14] he reveals their status as complementary principles. If we should take him, rather than Leucippus,[15] to be the source of arguments that use the formula οὐ μᾶλλον to justify the coexistence of the full and the void, we can conclude that he took the existence of the void to be a logical consequence of the principle of sufficient reason and so a perfectly rational thesis.

Did Democritus acquire the additional confidence he exhibits, in comparison with Leucippus, from Xeniades? Naturally, I would not dare to affirm this. Nevertheless, one might note that concerning the two points just emphasized, Xeniades adopted positions that are not unrelated to Democritus' deviations from his teacher. First, he led a frontal attack against Eleaticism without seeking shelter behind the testimony of perception, something he completely impugns. In this way, he showed that one could contest the near monopoly on rationality that Eleaticism had arrogated for itself, and which had kept his first opponents from combating him other than from his argument's counterintuitive consequences. Second, Xeniades did not hesitate to confer the status of an *archê* on nonbeing, just as Democritus did, although he did it in a different manner. We should not speak, then, of one influencing the other, since that would go far beyond what the texts support. But we can say, at the very least, that in evaluating the vulnerable points in the Eleatic fortress, Xeniades' position offers the same diagnosis as Democritus', especially in those respects in which his diagnosis differs from that of Leucippus.

Let us turn now to Democritus' epistemology, whose obscurities are notorious, and ask whether certain of its features could be clarified by linking it with Xeniades' epistemological nihilism. A little earlier, I showed that it was very likely that Democritus used the technique of περιτροπή to refute this nihilism. If one further grants that the argument Sextus preserves in support of Xeniades' thesis was an argument that belonged to Xeniades himself, as I have tried to establish, it becomes legitimate to ask whether Democritus might not have been content to show that the thesis destroys itself, but turned his thoughts to the premises of the argument that claims to prove it.

One of Democritus' gnoseological fragments, more than the rest, seems to answer well to this expectation. Democritus imagines a dialogue between the mind and the senses, which he begins by 'slandering the appearances' (τὰ φαινόμενα διέβαλε); he then gives perceptions the following reply in addressing themselves to thought: 'wretched mind, you who derives your beliefs (πίστεις) from us, would you overthrow (καταβάλλεις) us? This overthrow is your own downfall' (DK 68 B 125). It is difficult not to recognize in this reply a sort of quaint transposition of the argument by which Xeniades initiated the διαβολή of perceptions. To say (as the senses do in Democritus) that thought derives its beliefs from them is to say precisely (as Xeniades does) that perceptions are 'the highest criterion of all things'; and to say (as the senses do in Democritus) that by attacking them, thought itself falls a victim to the blow it gives them is to say precisely (as Xeniades does) that 'everything is false,' since perceptions, the 'highest criterion,' are false. In the debate Democritus imagines, the senses make audible Xeniades' voice.

If this identification is acceptable, it allows us to gain the proper perspective on Democritus' fragment. It is frequently asked whether the dialogue contained a response by the 'wretched mind' and what that response might have been. Without seeking to reconstruct it, I believe it is at least legitimate to hold that Democritus did not give the senses the last word in their exchange with the mind. They in fact argue as Xeniades does, and we have every reason to believe that Democritus did not accept Xeniades' radically skeptical conclusions. The difference

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[14] DK 68 B 156 is presented as a textual citation of Democritus.

[15] Putting to one side various contradictions in our sources: cf. DK 67 A 8 (Simplicius).

that separates them is that, in Democritus, the senses warn thought that it risks being implicated in their own downfall, while in Xeniades, the 'wretched spirit' accepts their challenge and throws itself into the abyss of not-knowing at the same time it hurls them down. In more sober terms, one could say that Xeniades makes an inference where Democritus is content just to state the implication that corresponds to it, thus signalling that one will wind up with certain consequences if one accepts certain premises, but without endorsing them personally.

Of the premises in Xeniades' argument, the one that Democritus most likely rejected was the second, which attributes the status of 'highest criterion' to perceptions, thus placing thought completely under their authority. In fact, we know from a verbatim quotation the expressions he used to distinguish 'bastard' knowledge, which the sense organs furnish, from 'legitimate' knowledge, which gives us access to atomic realities; Democritus said the second is 'separated' (ἀποκεκριμένη) from the first (DK 68 B 11). Whatever the exact sense of this 'separation' is, it appears at least to rule out any position that puts thought completely under the authority of the senses. To the extent, then, that one attributes the position expressed by the senses in this fragment of dialogue to Democritus himself, one faces an extremely embarrassing contradiction. But if instead we suppose that the apostrophe of the senses to the mind translates Xeniades' point of view, and not Democritus', the contradiction dissolves, and one ought not to feel any longer the slightest need to weaken in any way the separation and reciprocal independence that Democritus establishes between the two forms of knowledge he distinguishes. One might even assume that by introducing the metaphor of legitimacy and bastardhood, he has solved a problem that he inherited from the Xeniadean notion of a 'highest criterion.' For this metaphor would permit him to reject the dependence of the mind with respect to the senses, without succumbing to the easy temptation of just inverting it, by maintaining the dependence of the senses on the mind. Once any relation of paternity between the two terms is removed, in favor of a fraternal relation, the opposition between the legitimate and the bastard allows us to reestablish a difference in value between them, without affecting the parity of their genealogical status. This metaphor could therefore find itself as the culmination of a sequence of reflections, provoked in Democritus by Xeniades' reasoning.

It is time to conclude. One can do it, if what I have said is not too fantastic, by saying that Xeniades of Corinth has emerged a little less poorly known and a little less eccentric; his case on appeal is somewhat strengthened, his paradoxical theses appear better connected, their possible influence in his contemporaries' intellectual world drawn at least in dotted lines. One senses that this black star's peculiar light did not sparkle in sterile solitude.[16]

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[16] In revising the text of this presentation for publication, I have tried to take into account the valuable observations given to me by Fernanda Decleva Caizzi, Jonathan Barnes, Lambros Couloubaritsis and Richard McKim, whom I thank very cordially; and I would like to thank Victor Caston for translating this article into English.

Chapter 13

Democritus and Eudaimonism

Julia Annas

Democritus' ethical theory, although it has attracted some notable scholarly attention,[1] has not been as central to discussions of ancient ethics as one might expect, especially given the centrality to history of philosophy of his metaphysics and epistemology. This is in spite of the fact that the overwhelming majority of the extant fragments are ethical in content, and despite the fact that Democritus, being contemporary with Socrates, is among the first ancient thinkers from whom we have ethical material.

It is a pleasure to present this chapter as part of an occasion honoring Alexander Mourelatos. His work on the earliest Greek philosophers has raised the level of debate and set high standards of scholarship. It is with some apprehension that I make a foray in this area, although I remain confident that he will, whatever the chapter's merits, receive it with the courtesy and goodwill that have always accompanied his rigorous and careful philosophical investigations.

The reasons for the comparative neglect of Democritus' ethics are familiar. The ethical fragments themselves are highly various, and the authenticity of many of them has been suspected.[2] It is not until the Hellenistic period that we find Democritus referred to, by Cicero, Arius Didymus, Diogenes Laertius, and Clement, as a systematic ethical thinker who offers an answer to what were by then familiar questions of ethics, such as, What is our final goal? What is the criterion for choice?[3] Some scholars have found recognition of a conceptual continuity between Hellenistic thinkers and the earlier author.[4] Others, however, have seen merely a stereotyped assimilation to later ideas.[5] The problem is underlined by the unfortunate fact that our fragments, copious though they are, do not unambiguously indicate an explicit ethical framework. Many of them are *gnomai* or sayings, and may have been extracted from originally longer and more continuous contexts. The few longer passages that we have, such as fragment 191, leave us regretting that so many of our fragments are snippets and aphorisms.

Faced by this rather discouraging situation, many scholars have fallen back on the view that our sources, both fragments and reports, underdetermine the content of Democritus' ethics to such an extent that it is uselessly speculative to discern theory or structure in the material we

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[1] See Natorp, 1893; Bailey, 1928, ch. III.9; Guthrie, 1965, pp. 489–97; Vlastos, 1945, pp. 578–92 and 1946, pp. 53–64, reprinted in Allen and Furley (eds), 1975, pp. 381–408; Taylor, 1967, pp. 6–27; Gosling and Taylor, 1982, ch. 2.1; Kahn, 1985, pp. 1–31. In this chapter I shall not have anything to say about Democritus' social and political ideas. On these see Procopé, 1989, pp. 307–31, and Spinelli, 1991, pp. 290–319.

[2] Some come from a collection of maxims ascribed in the manuscripts to 'Demokrates.' However, the shaky status of our evidence about Democritus' ethics can be greatly exaggerated.

[3] See Cicero *Fin.* 5.23; Arius Didymus *apud* Stobaeum *Ecl.* 2.52.13 ff.; Diogenes Laertius 9.45; Clement *Strom.* 2.130. I do not think that it is profitable to look for Democritus in Plutarch's *On Tranquillity of Mind*, although its main thought, that it is your inner state which matters for tranquillity of mind rather than your outer condition, is in harmony with Democritus' ideas.

[4] Notably Natorp, 1893; and Gosling and Taylor, 1982.

[5] Notably Bailey, 1928, and Kahn, 1985. They are supported by Striker, 1990, pp. 97–110 (reprinted in Striker, 1996).

have. As a result, accounts of the ethics often limit themselves to treating the fragments as pieces of advice about how to live, as though they were a collection of wise saws. The result is predictably not very inspiring, and moreover looks more like advice as to how to get on in life than any kind of moral theory.[6]

However, this response, theoretically minimalist though it is, is not satisfactory even as an unambitious account of Democritus' ethics. The fragments themselves display differences that compel us to put them in some kind of theoretical framework just to make sense of all of them in a consistent way. The most notable such difference, which has of course been noticed, is that, while some of the sayings are banal and everyday, others stand out for their unconventionality. Some of these are strikingly like sentiments we find in Plato, particularly in Plato's 'Socratic' dialogues.

Thus on the one hand we find banalities such as: 'One should emulate the deeds and actions of virtue, not the words' (fr. 55); 'Continual companionship with the base increases a disposition to vice' (fr. 184); 'It is characteristic of intelligence to guard against future injustice, and of insensibility not to avenge injustice in the past' (fr. 193); 'It is important to think as you ought in misfortune' (fr. 42).

On the other, however, we find: 'The wrongdoer is unhappier than the person wronged' (fr. 45); 'People are happy not because of their bodies or possessions, but because of rightness (*ὀρθοσύνη*) and breadth of understanding (*πολυφροσύνη*)' (fr. 40); 'Happiness does not dwell in flocks or in gold; it is the soul which is the home of a person's *daimôn*' (fr. 171); 'Things turn from good to bad for people, if one does not know how to guide and keep them resourcefully. It is not right to judge these things to be bad; they are goods. But it is possible to make use of good things, if one wishes, to ward off bad' (fr. 173). These claims, that happiness depends on what you make of yourself rather than on what you have, and that the value to you of things depends on the use you make of them, are familiar as 'Socratic' thoughts from Plato's Socratic dialogues. (There are also fragments suggestive of themes in other Platonic dialogues: correct, as opposed to wrong, erotic love (fr. 73); courage shown in resisting desires as well as on the battlefield (fr. 214);[7] strikingly, justice conceived of as the source of an individual's right action in general, not merely in social contexts (fr. 256)).[8]

It is hard to see how these thoughts, especially the ones which to us sound 'Socratic,' can reasonably be treated as just more wise saws for the person wanting to get on in life. There is a noticeable tension between the worldly-wise tenor of the 'banal' fragments and the strongly revisionary sentiments of the 'Socratic' ones.

This problem can be resolved, of course, by declaring the more 'Socratic' fragments inauthentic or suspicious, as does Guthrie, for example.[9] But to expel or ignore them in this way is not

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[6] See, for example Barnes, 1979, vol. II, pp. 228–33. 'In his collection of *gnomai* we may perhaps discern a consistent outlook, but we shall look in vain for a systematic ethics … It is a recipe for happiness or contentment, not a prescription for goodness: the system sets up a selfish end for the individual and counsels him on how to attain it; it does not set up a moral goal and offer advice on its achievement. If Democritus' *gnomai* offer an unsystematic set of moral maxims, his reflexions on *euesto* offer no moral speculations at all; instead, they offer a systematic theory of prudence.'

[7] Cf. fr. 50: the person who can't resist money (*χρημάτων ἥσσον*) will never be just. These fragments point in the direction of the reciprocity of the virtues, but no more.

[8] Fr. 256 goes, 'Justice (*δίκη*) is doing what one should do (*τὰ χρὴ ἐόντα*), injustice (*ἀδικίη*) is not doing what one should do, but turning aside.' Procopé has the usual reaction in claiming (1989, p. 317): 'As a definition of justice and injustice, the sentence is hopeless: "what needs be", *τὰ χρὴ ἐόντα*, is just too wide a term to make an adequate *definiens*.' Yet surely just such a breadth is needed to explain why everyone in Book I of the *Republic* assumes without discussion that an exploration of justice is the same as a search for the way an individual should live.

[9] Guthrie, 1965, pp. 490–1, actually seems to hold the view that both the banality of the banal fragments, and the striking originality of the more original fragments, are grounds for suspicion.

reasonable. According to Guthrie, to suppose that Democritus had these ideas before Plato, or at any rate independently of him, runs up against the fact that Aristotle admires Democritus but always 'gives Socrates the credit for originality in this respect [that is ethics].'[10] Aristotle's claim about Socratic originality is, however, limited to general and methodological points, not to more detailed points like the above.[11] His silence as to whether Socrates or Democritus first ventured the thought that the wrongdoer is unhappier than the person wronged proves nothing. In general, no scholar has produced remotely convincing arguments for excluding the original, 'Socratic' fragments.

This means, however, that if we treat all the fragments we have in an undifferentiated way we are ignoring important evidence that Democritus did have an ethical theory, rather than homely practical advice; this is so because we are ignoring a source of conflict among the fragments. Thus, only an attempt to find some theoretical structure in the ethical material will actually do justice to the material that we have.

Further, we have two strong reasons to look, not merely for some structure, but for a eudaimonistic structure in particular. One is that eudaimonism is the structure to be found in all Greek theories that make their structure explicit,[12] and is also the structure to be found in the ethics of Plato and the Platonic Socrates,[13] where it is not made the subject of discussion but is nonetheless explicit.[14] The other is that we have ancient sources which tell us about Democritus' ethics in a way that makes it clear that they read him as a eudaimonist. As already mentioned, the fact that these sources are themselves in a consciously eudaimonist tradition is often held against them, as though it automatically invalidated their claims. It is unclear why being in the same intellectual tradition as someone is held to be a source of bias; it could equally well be argued that the testimony of the Hellenistic authors is especially reliable on this point, since they are in a better position than we are to recognize that a philosopher belongs to their own (eudaimonistic) tradition. At any rate no good grounds have been brought forward for disqualifying the opinion of the Hellenistic authors who see Democritus unproblematically as a eudaimonist.[15]

We should therefore start with Clement's statement: 'The Abderites also teach that there is an end (τέλος). Democritus in his book *On the End* says that it is *euthumia*, which he also calls

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[10] Guthrie, 1965, p. 490. Natorp, 1893, regards Aristotle's insistence that Socrates is the 'founder of ethics' as the explanation of his silence about Democritus' ethics.

[11] Aristotle remarks at *Metaph.* 987a32–b10, 1078b12–1079a4, 1086a37–b11 that Socrates' innovations were inductive arguments and a search for universal definitions in ethical matters, but that he did not 'separate' the objects of these as did Plato. This whole story, apart from being highly disputable, says nothing about the content of Socratic or Platonic ethics.

[12] With the exception of the Cyrenaics, who consciously reject it.

[13] The role of eudaimonism in Platonic (including Socratic ethics) has been increasingly recognized. See Vlastos, 1991, ch.8; Irwin, 1995, especially ch. 4; Brickhouse and Smith, 1994, ch. 4; Annas, 1999, ch.2.

[14] *Euthd.* 278–282, *Smp.* 204e–205a, *Phlb.* 20b–23a, 60a–61a.

[15] Scholars who ignore the framework tend to give only intuitive, unargued grounds. Thus Bailey, 1928, p. 191: '[B]efore Socrates had turned men's minds to a systematic inquiry into the moral life, it is improbable that any thinker propounded what could in any real sense be described as an ethical system. "Cheerfulness" is put forward by Democritus as the state of mind at which men should aim, in a perfectly simple and naive spirit.' Cf. Striker, 1990, p.98: 'Indeed, it is likely that Democritus' book was not a systematic treatise on ethics at all' and Kahn, 1985, p. 26: '[W]e need not follow the doxographers in attributing the Hellenistic concept of *telos* to a pre-Platonic moralist. An unprejudiced reading of the fragments does not support the view that Democritus' ethical thought is dominated by the pursuit of any single goal.' These views cannot account for Democritus' authorship of the works *On the End* and *On Tranqillity of Mind*, they rely on the idea that Democritus naively missed what Plato found basic, and also ignore the problem of consistently interpreting all the fragments.

euestô. He often adds, 'For enjoyment and lack of enjoyment is the boundary' ' (fr. 4; the final sentence will concern us later). We find other words for the end: *harmonia*, *summetria*, *ataraxia* (Stobaeus, A 167), *athaumastia* (Strabo, A 168), most notably *eudaimonia*, the word destined to become the philosophers' norm as an agreed specification of our final end. Aristotle famously tells us in the *Nicomachean Ethics* that everyone agrees that our final end is *eudaimonia*, but differs as to how to specify it. It is not clear from the fragments of Democritus whether he thought this also, or whether in Ionic Greek none of his variety of terms was regarded as uncontentiously the most general way of referring to the *telos*. Despite the shared upbeat nature of all the alternatives, Democritus' final end is not to be identified with pleasure, as we learn from a valuable passage of Diogenes Laertius: 'He says that the end is *euthumia*, which is not the same as pleasure, as some people mistakenly interpret it, but a state in which the soul lives calmly and stably, disturbed by no fear or superstition or any other passion' (A 1.45).

Eudaimonia occurs in a key passage from Arius Didymus in which Plato is compared with Democritus in a way which we find unusual and which (perhaps for that reason) has not been influential in interpreting either.

> Democritus and Plato unite in placing happiness (*eudaimonia*) in the soul. Democritus writes like this: 'Happiness does not dwell in flocks or gold; it is the soul which is the home of a person's *daimôn*.' He also calls it *euthumia*, *euestô*, *harmonia*, *summetria* and *ataraxia*. He says that it consists in distinguishing and discriminating pleasures, and that this is the finest (*κάλλιστον*) and most advantageous thing for humans. Plato is in harmony with Democritus on this. He writes about the most crucial thing in us [reason], saying that we should suppose that 'God has given it to us as a *daimôn*' and that happiness lies in it. [*Tim.* 90a] He says that it is a kind of state and disposition of the governing part of the soul. Of this good [happiness] the origin is the emotions (*πάθη*), while the boundary (*ὅρος*) and limit are reasoning. At any rate we can read, '[Pleasure and pain] are the two fountains let loose by nature to flow; the person who drinks from them <whence he should, and where and how> is happy, while the person who does not, is the reverse.' [*Laws* 636d-e] So, in naming pleasure and pain he establishes the origin of happiness from the emotions; and in saying, 'the person who drinks from them whence he should, and where and how, is happy' he ascribes to reasoning the distinguishing element in happiness. On this point, therefore, Plato and Democritus agree, inasmuch as Plato places in excellence of reasoning the good which is primary and sought for its own sake, and in pleasure that which supervenes, which he also supposes as a consequence to be called by the same words as joy (*χαρά*) and tranquillity (*ἀταραξία*).[16]

This passage is from Arius' general introduction to ethics. The whole introduction has been drastically summarized, and its sources are notoriously difficult to sort out, but this specific point has been preserved as a coherent and argued presentation, which is worth taking seriously.

We can see in general that for Democritus our final end starts in some way from pleasure, but is to be identified not with pleasure but with our reason's discrimination of pleasures. This fits with the point from Diogenes Laertius that some people misinterpret Democritus' end as being pleasure itself. In what follows I shall first follow up, with reference to the fragments, Arius' initial point that our final end is internalized, and some consequences of this. Next I shall look at the relevant passages of the *Laws* to see what Arius has in mind in Plato, and ask whether we can find comparable thoughts in Democritus' fragments, especially as regards the role of pleasure in the happy life. Finally, I shall look at the consequences in Plato, and then in Democritus, for the role in the happy life of reason and wisdom.

What does it mean to say that happiness is located in the soul? In the *Laws* Plato is clear that happiness is to be found in the life of virtue, not in the life aimed at acquisition of external goods. There are two kinds of goods, the Athenian says, divine and human; the divine goods are the virtues, and an individual's life should be devoted to virtue rather than wealth and power

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[16] Arius Didymus, *ap*. Stob. *Ecl.* 2.52.13–53.20.

(and consequently the life of the state should be suitably formed to produce people of this type). This is because the value to the person of external goods depends on the possession of virtue; someone with riches, power and every possible external good will be unhappy if he is not virtuous, while virtue ensures happiness even in the absence of external goods.[17] This bold position is set out in uncompromising language.

We would not expect to find an exactly comparable position in Democritus for a number of reasons, the main one being that our fragments represent the situation Cicero describes by saying that Democritus' position on virtue was scanty and not very well worked out.[18] Even Plato arguably has not worked out precisely what the consequences are for the role of external goods if happiness is 'placed in the soul'; the options here were elaborated later, in the dialectic between Stoic and Aristotelian conceptions of happiness.

However, even though the role of virtue is not prominent, we can see ideas in Democritus which provide a substantial parallel to Plato. The soul is consistently said to be more important than the body, and to be directive and to have influence on the body in a way that the body does not direct it. 'It is fitting for people to make more account of (*λόγον ποιεῖσθαι*) the soul than the body; for perfection of the soul rights badness of the body, but strength of the body without reasoning makes the soul not a bit better' (fr. 187 = fr. 36); 'What the body requires can easily be got by everybody without effort and misery; the things that require effort and misery and make one's life painful are desired not by the body but by the understanding's mistaking' (fr. 223); 'If the body were to sue the soul for its pains and sufferings all life long, then if he were on the jury he would gladly convict the soul of having ruined some parts of the body by carelessness or dissipated them by drunkenness, and of having destroyed and rendered others by its susceptibility to pleasures. It is just like one's ready blame of the user of a tool or utensil in bad condition' (fr. 159). The goods of the soul are even distinguished as divine, as opposed to merely human, in a way that provides a rather startling parallel to Plato: 'The person who chooses the goods of the soul chooses what is more divine; one who chooses those of the body, chooses what is human' (fr. 37). 'It is best for people to live their life with as much cheer and as little pain as possible. This would happen if they would not get their pleasures from mortal things' (fr. 189).

We thus find that happiness depends on what you are, in the sense of what you make of yourself. The distinction of soul and body here is not dualistic in a psychological sense; rather it distinguishes the soul as the aspect of you that is active and can change and direct the other aspect, here called the body.[19] Happiness is to be found 'in the soul' – that is, in what you do with yourself and your life. 'What is called happiness' is the everyday conception of a successful life, such as the riches that people can amass under tyrannical rule (as opposed to poverty under a democracy) (fr. 251). But real happiness is not made up of things you have, but of what you yourself do with what you have; and this again depends on the kind of person you are.

We also find a thought which follows fairly naturally from this, namely that the value to you of other things depends on the use you (that is, your soul, the active aspect of you) make of them. 'Things turn from good to bad for people, if one does not know how to guide and keep them resourcefully. It is not right to judge these things to be bad; they are goods. But it is possible to make use of good things, if one wishes, to ward off bad' (fr. 173); 'Reputation and wealth without understanding are not safe possessions' (fr. 77); 'Making money is not unuseful,

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[17] *Laws* 660e–663d, especially 661a-e.

[18] 'Pauca enim, neque ea ipsa enucleate, ab hoc de virtute quidem dicta' (*Fin.* 5.88).

[19] Kahn makes the point that Democritus does not have a clear and consistent line on which aspects of the self are regarded as active and which as passive, especially with regard to the relation of reason and desires. But it seems clear that the soul is consistently regarded as active, indeed as the user of the body, which is cast as a tool for the soul to make use of.

but if as a result of wrongdoing it is worse than anything' (fr. 78).[20] The thought that external goods have value for you in a way that depends on the use you make of them is apparently a commonplace in Plato's time; he pushes it further, to the thought that it is virtue that determines the value for you of external goods.[21] Democritus stays closer to common sense here.

What matters to a person seeking her final good, then, is not what she has, by way of bodily and external goods, but what she does with what she has. Democritus puts this as the thesis that one's soul should direct one's body and goods. Even lacking clear pronouncements on virtue, this is a striking internalization of one's final end; what matters is within you, not without. Perhaps the most memorable expression of this is the thought that your *daimôn* or guardian spirit is in your soul; the factor that accounts for your succeeding in living a good life or not is not an arbitrary allocation of fortune, but your own intelligence and the way you use it.

It is a great pity that Democritus was not more explicit about the role of virtue, especially in the light of the interesting fragments about shame. 'Feel no more shame before other people than before yourself. Don't do a wrong thing any more if nobody will know than if every single person will know. Most of all feel shame before yourself, and set this up as a law for your soul, so as to do nothing inappropriate' (fr. 264); 'Neither say nor do anything base, even if you are alone. Learn to feel shame before yourself far more than before others' (fr. 244). Shame, a reaction that you think of as a response to the views of others, is here treated as a reaction that you should have yourself to reflections about yourself. Bernard Williams has influentially called the ancient idea of shame that of the 'internalized other,' and in these fragments we can, it seems, see the other in the process of becoming internalized.[22] Again, it is what goes on within you that matters, rather than what happens outside you, including the reactions of others.

This is the context in which we should probably consider fragments which stress the inner side of right- and wrong-doing. 'It is good not merely not to do wrong, but not even to want to do it' (fr. 62); 'A man is reputable (δόκιμος) not merely from what he does, but also from what he intends (βούλεται)' (fr. 68).

By this point most of us are feeling Cicero's frustration: surely what matters is not just to use your intelligence, but to use it virtuously, so why isn't there more about virtue? We cannot, of course, satisfactorily answer this question. But we have already seen that some of Democritus' fragments align themselves with Socratic ideas in that they make virtue far more important to the person than external goods are. It can only be the case that wrongdoing makes you unhappier than being wronged if virtue matters more than external goods such as security. It is pretty clear, in fact, that the 'more divine' goods of the soul must be the virtues, as they are divine goods for Plato in the *Laws*, but this cannot be demonstrated.

I shall now turn to Arius' interesting comment that for Democritus as for Plato happiness lies not in our *pathê* of pleasure and pain but in our reasoned distinction and discrimination of them. Elucidating the way Plato is being understood here is clearly the key to seeing what it is in Democritus that is being said to be in harmony with it.

Arius picks out two points: that for Plato our guiding spirit, which leads us to happiness, is just our own reason,[23] and that happiness begins from our *pathê* (feelings, emotions) of

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[20] Cf. fr. 218: 'Wealth from evil doings makes the reproach greater.' This is rather like the sentiment of the speech in Plato *Mx.* 246d8–247a4. Fr. 172 gives advice based on the idea that we get good and bad from the same things, depending on how we handle them; we need to work out an intelligent way of dealing with them, analogous to the helpful skill of swimming which makes water manageable for us, rather than a danger.

[21] *Mx.* 246d–247a4, 247e–248a, *Euthd.* 278–282, *Laws* 631, 661–3.

[22] Cf. fr. 60: 'It is better to *elenchein* (examine? test?) one's own faults than those of others.' See Williams, 1994.

[23] Cf. Heracleitus fr. 119: a person's character is their guiding spirit. I shall have nothing further to say about Arius' use of *Tim.* 90a, which seems a reasonable interpretation.

pleasure and pain, but resides not in them but in reasoning which distinguishes among pleasures and pains. He illustrates this with a quotation from the *Laws* (636d-e) in which pleasure and pain are two fountains which provide happiness to the person who not merely takes from them but does so 'whence, and where and how' he ought.

Arius has here lighted on an immensely interesting point in the *Laws*, one which has had surprisingly little modern discussion. There are many passages which express a view which at first looks like hedonism: that everyone wants pleasure and cannot be motivated to do anything except by way of seeking pleasure. Thus we find that we must show that the just life is the pleasantest, 'for nobody could willingly be persuaded to do something, unless more pleasure than pain followed it' (662e8–663b6). We look for a life in which pleasure predominates over pain, because 'we choose less pain with more pleasure, do not choose less pleasure with more pain and when they are equal find it hard to be clear about what it is we want' (732e4–733d6). Pleasure and pain are two original fountains from which we drink, as in the passage quoted by Arius. Most strikingly, pleasure and pain are the strings which direct our movements, when we are conceived of as puppets of the gods (644d7–645c1). Pleasure and pain, then, are basic motivations for us; indeed Plato in the *Laws* seems to ignore the tripartite psychology of the *Republic* in favor of a simpler way of looking at humans, one in which human motivations are schematized as reason on the one hand and pleasure and pain on the other.

But, despite their importance as basic motivations, pleasure and pain are not the only things that motivate us, nor is rational motivation to be reduced to an instrumental ability to produce pleasure and avoid pain.[24] For it turns out that the human puppet is moved not just by the hard and inflexible strings of pleasure and pain, but by the soft, pliable string of reason. If we yield to our impulses to pleasure and pain in an unreasoned way, we are being jerked about like puppets. But if we follow reasoning, then we follow a source of motivation which makes us 'masters of ourselves'; reason can direct and manipulate pleasure and pain in ways which they, being inflexible and irrational, cannot direct and manipulate it. (Further, reason, being embodied in the law of the state, connects us to other rational beings.) It is by using our reasons that we make ourselves able to shape our lives and to seek pleasure and pain only in the right way – which in the *Laws* is uncompromisingly the way directed by virtue.

In fact, in the *Laws* Plato is optimistic to the point of naiveté about the power of reason to transform our lives and to direct us to take pleasure in what is underwritten by morality. As in the *Republic*, there is an extensive educational system. Children's first perceptions, the Athenian says, are of pleasure and pain, and it is 'in these' that virtue and vice first come to the soul. Hence children are brought up in ways that ensure that they take pleasure in what is morally sanctioned and find what is immoral painful and repulsive (653a–671a, esp. 663a-d). Plato even thinks that our pleasure in sex, one of the most basic drives, is so socially conditioned that a change in social conditioning can utterly transform it. In a passage in Book 8 which strikingly suggests the modern view of sexuality as a social construct, Plato thinks that people can be brought, if not quite to desire none but married, reproductive sex, at any rate to find homosexual sex as repulsive as they now find incestuous sex. If homosexual sex is always presented in negative and repellent ways, he thinks, then people will not desire it, or find it pleasant.[25]

In the *Laws*, then we can see ideas which justify Arius' claim that Plato holds that the origins of happiness lie in pleasure and pain as *pathê*, that is, as unreflective feelings or reactions, while the distinguishing element in it is reason. It is because we can reason that we can educate and transform our basic drives for pleasure and pain so that we take pleasure and pain in what

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[24] Hence, despite the insistence on the importance of pleasure and pain, the position of the *Laws* is utterly unlike that of the *Protagoras*. On Plato's various views about pleasure, see ch. 7 of my 1999.

[25] *Laws* 830b–841e. Plato is thinking only of male homosexual sex. He is right about the ways in which Greek culture of his time encouraged it. His own ideas have been shown to be unrealistic by the continued existence of homosexuality in societies which have tried to discourage it.

reason approves. The person who does this is happy, while the person who merely goes along unreflectively with their feelings will not thereby achieve happiness.

Can we find anything in Democritus which would explain for us why Arius takes him to be in harmony with Plato on this point?[26] We know from Diogenes Laertius (A 1.45) that our final end is *euthumia* and not pleasure, and that the latter would be a mistaken interpretation. Perhaps it is in this context that we should read fr. 69, 'For all people the good and the true are the same; but the pleasant (ἡδύ) is different for different people.' What people find pleasant depends on a number of factors which vary between people; but the good, our final end which we seek, can't depend on personal attitude in this way. Pleasure can't be our final end, we might say, because it is subjective, whereas our final end must be objective, something that everyone would agree they had reason to seek. *Eudaimonia*, as we know from Aristotle, fills this bill, and so presumably do the other specifications that Democritus uses. It would be interesting to know, as we cannot, whether the term *euestô* that Democritus employs was chosen because it suggests objective well-being, or whether its presence is merely an accident of Ionic dialect.[27]

Arius himself connects Plato and Democritus in saying that Democritus held that our final end lies in distinguishing and discriminating (διορισμοῦ καὶ διακρίσεως) pleasures, something said to be both most fine (κάλλιστον) and most advantageous (συμφορώτατον). The fragment most obviously relevant to this is fr. 74: 'Accept no pleasure, unless it is advantageous (συμφέρῃ).' This, however, brings with it a well-known complication in the apparent tension with fr. 188 (cf. fr. 4): 'The boundary (ὅρος) of what is advantageous and disadvantageous is enjoyment and lack of enjoyment (τέρψις καὶ ἀτερπίη).' Fr. 74 makes good sense in relation to the Arius passage, and it is quite easy to find interpretative contexts for fr. 188 which do not have it coming out in conflict with 74. It is likely that it refers to the final end, rather than to particular occasions of choice, as does 74, and it is also likely that *horos* here means a boundary in the sense of a sign that the state obtains, rather than something definitive of what the state is.[28] It is a sign of having achieved one's final end, a rational discrimination of pleasures according to Arius, that one enjoys one's life. This is what we would expect from a philosopher who characterizes our final end in terms of enjoyment, cheerfulness, and lack of trouble. However, far from its following from this that every pleasure is to be taken, we should in fact choose only pleasures whose enjoyment will conduce to the attainment of a rational discrimination of pleasures.

This sentiment fits with several fragments on pleasure. Some fragments give a positive role to pleasure. 'A life without feasts is a long road with no inns' (fr. 230); 'Of pleasant things those that are rarest give most enjoyment when they happen' (fr. 232). However, we find that not everybody has a pleasant life, and the reason for this is their lack of intelligence. 'Fools live without enjoying life' (fr. 200); 'Fools desire length of life while not enjoying length of life' (fr. 201); 'Fools desire what is absent, but neglect what is present and past, though they are more fruitful' (fr. 202); 'Fools please [?] nobody their whole life long' (fr. 204); 'Fools desire life because they are afraid of death' (fr. 205); 'Fools wish to grow old because they are afraid of death' (fr. 206). The fools who are lambasted are people who do not use their reason and

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[26] Natorp, 1893, ch. 8, brings out several points of similarity between the two philosophers (unfortunately marred by his tendency to see actual references in Plato to Democritus). These similarities have been underestimated in most accounts of ancient ethics. There is, of course, an immense irony in the fact that Democritus' views on pleasure converge with those of Plato in the *Laws*, the dialogue in which, though Democritus is not named, it is clear that Plato is attacking metaphysical theories which include his.

[27] See Taylor, 1967, pp. 11–12 on the word; he shows that Vlastos' claim that there must be a reference to the physical theory of atoms and void has no basis.

[28] See Gosling and Taylor, 1982, pp. 32–3 for a discussion of the issue (they decide that the exact force of *horos* here cannot be determined).

intelligence, and as a result they do not enjoy life. They cling to life, for example, merely because they are afraid of something worse; and if you don't even enjoy being alive, how can your overall state be a positive, enjoyable one? Intelligence is required, it seems, for the living of an enjoyable life, and we can plausibly connect this to the idea that particular occasions of choosing pleasure should be guided by what is overall to one's advantage, rather than by unreflectively pursuing the immediately pleasant.

We can see this idea in other fragments, for example fr. 146 with its context in Plutarch's *On Progress in Virtue* 81a, which tells us that a person who stands well in his own estimation, and is pleased and satisfied with, rather than disdainful of himself as a competent witness and spectator of fine things, shows that reason is nourished and rooted within himself and that, as Democritus says, 'it is accustomed to find pleasures from itself.'

Most noticeable here are fragments which link our final end not merely to what is overall advantageous but to what is fine (*καλόν*), which Aristotle characterizes as the aim of the virtuous person. 'One should choose not every pleasure, but pleasure at what is fine' (fr. 207). 'Temperance (*σωφροσύνη*) increased what is enjoyable (*τὰ τερπνά*) and makes pleasure greater' (fr. 211). 'A cheerful person who is led to deeds that are just and lawful rejoices day and night, and is strengthened and without care. But whoever disregards justice and does not do what he ought finds all such things unenjoyable when he remembers any of them, and is afraid and reproaches himself' (fr. 174). Here greater overall pleasure is linked not just to rational choice of what is advantageous but to virtue and the fine. Once again we can only lament the absence of texts that would clarify for us the link that Democritus makes between virtue and advantage. Cicero's complaint certainly seems to be supported by the fact that Arius tells us that for Democritus our final end lies in the discrimination of pleasures, and that this is both 'finest and most advantageous' for people. We would expect something more theoretically sophisticated as to why these should go together, but we do not find it.

However, theoretically unsupported or not, we do find the claim that virtue, far from being opposed to pleasure, actually increases it. We can see from the fragments and from Arius' comparison with the *Laws*, the general lines of the idea here. We naturally go for pleasure and pain, but, being humans, we are also motivated by reason, which enables us to reflect on and hence to modify our life, in such a way as to take pleasure in what is moral and advantageous; and this results in a more pleasurable life overall than does the mindless pursuit of particular pleasures.

This brings us to the third point, the prominence in the fragments we have of reason and wisdom as a key to living well. Even in fragments which do not directly link the exercise of intelligence to living more enjoyably or tranquilly, we find a constant harping on the importance of using one's own reason in one's life. Many of these fragments look at first glance like banal advice, but even if this is the impression they produce as individuals, the cumulative impression they produce is that of an ethical philosophy that has grounds for thinking that happiness is the product of one's own reasoning rather than external factors.[29] Using one's own reason is opposed to chance,[30] and also to one's given endowments. In Democritus' view we can be educated to organize our lives in a reflective way which will lead us to happiness.

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[29] Notable here is the very intellectualist advice about having and rearing children; we should not just have what comes along, but choose an already available child, with a view to its doing well. These fragments are so out of line with ordinary Greek thinking about having children that their emphasis on doing the reasonable thing, even when this appears strained and unnatural, would be very obvious to an ancient audience.

[30] Bailey, 1928, pp. 186–8, points out that acceptance of the role of chance in the ethics is in contrast to the insistence in the physics of the absence of chance. Bailey (and Barnes, 1979) express some surprise that Democritus should keep the physics and ethics apart on this issue, as well as the implication of Democritus' determinism, namely that the status of our free ethical choices becomes

Thus we find that, 'People fashioned an image of chance as an excuse for their own lack of counsel (*ἀβουλίη*). For chance seldom fights with practical wisdom, and intelligent sharp-sightedness sets straight most things in life' (fr. 119). This intelligence is something that has to be learned: 'Neither skill nor wisdom is attainable, unless you learn' (fr. 59).[31] Learning is a matter of acquiring rational understanding, not facts: 'Many are polymaths but lack sense (*νοῦς*)' (fr. 64).[32] Those who do not learn are ignorant in a profounder way than those who are ignorant of facts: 'The cause of going wrong (*ἁμαρτίη*) is ignorance of the better' (fr. 83). Learning is important because, 'Nature (*φύσις*) and teaching are close, for teaching reshapes (*μεταρυσμοῖ*) the person, and in reshaping makes their nature (*φυσιοποιεῖ*)' (fr. 33). Teaching, that is, alters us.[33] It enables us to detach ourselves from the mindless pursuit of present pleasures, and to discriminate and choose between pleasures with a view to obtaining our final end. That is one reason why Democritus is so sure that learning the content of his sayings will improve the reader (fr. 35). The person who has developed his reason through teaching has a surer basis for right conduct than the unreflective person who acts because of motives like fear, or avoidance of law-breaking (fr. 181); the person convinced by 'the persuasion of reasoning' will not do wrong even where he might get away with it. 'Reason is far more powerful for persuasion than gold' (fr. 52).[34]

It is probably in this context that we should understand the repeated claim that wisdom leads us to do the right thing, where this is seen as the mean between two opposed ways of going wrong. 'If you were to overshoot the mean (*τὸ μέτριον*), the most enjoyable things would become most unpleasant' (fr. 233). Many fragments develop the related idea that there is an appropriate amount (presumably the mean between excess and defect) of what one seeks, and that hitting this is what correctness of action is. 'For people who get their pleasures from the belly, overshooting the appropriate point in eating or drinking or sex, the pleasures are brief and short-lasting, just for the time they are eating or drinking, while the pains are many. For they always have the desire for the same things; whenever they get what they desire, the

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problematic. However, there is no solid ground for supposing that Democritus' ethics and physics stood in any close relation (see Taylor, 1967, *contra* Vlastos); nor should we expect it. Ethics and physics are different parts of philosophy, and to carry physical conclusions over to ethics would be a naive mistake.

[31] Fr. 53 is a bit puzzling in this connexion: 'Many have not learnt reason (*λόγος*) but live according to reason (*κατὰ λόγον*).' Here Democritus seems to envisage people who can follow reason though they have not themselves 'learnt' it, presumably by following the reason of others. This fragment would be easier to understand if we had more of Democritus' social thought. At any rate following reason through your own learning is the best option.

[32] Cf. also fr. 65: 'One should practice much thinking, not polymathy' (*πολυνοΐη, οὐ πολυμαθίη*). Thus Democritus joins Heraclitus in deploring confusion of much learning with wisdom (fr. 40). He also (remarkably, in view of the Greek respect for age) makes the point that it is education, not age, which makes a person wise (fr. 183).

[33] Cf. fr. 197, where fools are 'formed' or 'shaped' (*ῥυσμοῦνται*) by the gains of chance, people who learn by the gains of wisdom. It is surely grotesque to suppose that the reference is to reshaping *atoms*; the relevant reshaping is of the person's character and desires. Scholars have been overimpressed by the point that *rusmos* is the technical term for the shape of the atoms; see Taylor, 1967, pp. 14–15. For all we know, however, its use as 'shape' generally may have been widespread in Ionic prose. Our sources are so scanty for Presocratic fragments in non-Attic dialect that it is dangerous to speculate about Democritus' conscious choice of vocabulary.

[34] We should not, however, forget the depressing fragment 110: 'Let a woman not practice *logos*; it is terrible (*δεινόν*).' Democritus' reasons for excluding women from the community of reason are the usual unreflective ones which show up in the misogyny of some of the other fragments, where it is said that women use their minds for evil and should ideally not talk much. Among men he favours community of reason over community of kinship (fr. 107).

pleasure quickly goes and there is nothing good in them but a brief joy. And then they need the same things again' (fr. 235).[35]

Many theoretical questions remain unanswered here. The two most prominent are, first, What is the place of virtue in the happy life? On the one hand it is clearly seen as important for the person seeking happiness, yet obvious problems arise if virtue requires self-denial, for example, while the end we seek is a positive, cheerful one. The person wronged is happier than the wrongdoer, according to both Democritus and Plato; but while this thought is set in context in Plato's *Gorgias*, it is hard to see how it can be effectively defended as a way of being cheerful or tranquil. Democritus would probably reply that virtue, as a good of the soul, is more divine than the merely human goods that you get by flouting virtue and doing wrong. But perhaps it is not surprising that he said little about virtue, given the difficulty of sustaining such thoughts when happiness is thought of as consisting not in virtue but in a life which is cheerful, balanced, tranquil and so on. Here we can only say that Democritus is a pioneer, but that his work shows up the need for a fuller treatment of virtue as a good of the soul, and the corresponding moral psychology that will go with such a claim.

Second, Democritus locates happiness 'in the soul,' but can the happy life really be internalized in this way?[36] Here we find that even Plato is not as clear as his successors, and arguably clarity on the issue is not achieved until the Stoics, who see that if you claim that virtue is sufficient for happiness, then you have to distinguish sharply between the value of virtue (and the kind of role it has in your life) and the value (and role) of everything else. If virtue is sufficient for happiness, then external goods can be no more than what the Stoics call 'preferred indifferents.' If external goods can add to the happy life, either by helping to make it happy or by making it happier than it would otherwise be, then virtue is important for happiness, but not sufficient, and we need to know what its role is, and how important for happiness it is.

This is not merely a problem for the thought that virtue is what matters for happiness; it arises for any theory which puts happiness 'in the soul,' whether as virtue or as the rational pursuit of advantage. The tone of many of the fragments, as well as the idea that the soul is the user of the body, suggests that Democritus thinks that external goods make a life happy for the rational reflector in a way that they do not for the ignorant. This is compatible with external goods forming a part of the happiness of the rational and wise, so that their happiness would not be completely 'in the soul.' Yet some of the characterizations of happiness, especially as tranquillity (ἀταραξία) look suitable for a theory which does locate happiness completely in what is up to us. This wavering is culpable by the standards of later eudaimonist theory, when there had been much debate over the different options open once something internal to the person is held to be the most important element of happiness. But we can easily understand that at the beginning of eudaimonist theory the most important point would seem to be that of insisting that it is your own rational reflection that matters for happiness, rather than external goods. The different options open after wisdom and reflection are recognized to be more important than external goods cannot be expected to emerge clearly until there has been debate on the topic.

Whether we call Democritus a eudaimonist will depend on how much explicit theory we demand before we are prepared to use the word. He does not clearly stress the formal aspects of our final end (completeness, self-sufficiency), so important from Aristotle onwards, and

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[35] On the same theme are fr. 70: 'Unmeasured desiring belongs to a child, not a man,' as well as the long fr. 191, which expands on the advantages of living moderately; cf. fr. 102 that rejects excess and deficiency and says that 'the equal' in everything is fine. Fr. 219 expands on the idea that bigger desires encourage bigger lacks in the future, as does fr. 224. Fr. 71 claims that *akairoi* pleasures produce pains.

[36] Nill, 1985, p. 83, expresses some pertinent doubts on this point.

adumbrated in Plato.[37] Nor does he emphasize the intuitive point that we seek happiness in everything we do, while it cannot be sensibly thought of as a step towards a further end.[38] However, we can see that the fact that some of the fragments have struck people as 'Socratic' is not a matter of copying a few sentiments (whichever be the copier, Democritus or Plato). Rather, Democritus puts forward positions which, like Plato's, require interpretation in terms of a eudaimonist theory to make sense of them.

Democritus, assuming that we seek happiness, has a broadly specified account of what this is, namely cheerfulness, tranquillity, a generally positive view of one's life, one in which virtue is important in an unargued way. In this he differs from Plato, who gives a more emphatic and dominant role to virtue, and he is best seen, as we would expect, as a forerunner of Epicurus, who likewise specifies happiness as a tranquil and positive condition (though unlike Democritus he calls this pleasure). Democritus is, however, similar to Plato in his insistence on the dependence of happiness on your own intelligent organization of your life; the only guardian spirit you have or need is in your own mind.[39] He does not say that the unexamined life is not worth living, but he is sufficiently scathing about fools and the mess they make of their lives for it to be plausible that he would have approved of the idea. Only the reasoned and rationally ordered life has a hope of being happy. Like Plato, moreover, he is clear that the rationally ordered life will be one with different priorities from the lives of ordinary unreflective people. Like Plato's Socrates, he startles us with the claim that the wrongdoer is unhappier than the person wronged, that what matters for happiness is within you, that the commonly agreed criteria for happiness, such as beauty or wealth, are quite mistaken. These striking departures from common-sense rest on a confidence in the results of rational reflection on one's life shared by later, more detailed and explicit eudaimonists.

The view of Democritus as a prosy dispenser of common-sense advice is thus quite mistaken. He thinks that we should live rationally ordered lives focused on a single end, happiness, and follow through the results of thinking this way rigorously even when it conflicts with common-sense. For my money this makes him a eudaimonist. It is not, I think, useful to reopen the question of whether he influenced Socrates or vice versa; we shall never be able to determine the answer, and in any case the question of who first expressed a new way of thinking of things is unimportant. But in histories of ethics it would do more justice to Democritus to mention him, at least, as one of the pioneers of the dominant form of ethical theory in the ancient world.

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[37] See *Phlb.* 20b–23a, 60a–61a for an argument which relies on the idea of completeness, and even contains vocabulary which is suggestive of Aristotle's discussion in *EN* I.

[38] Again, contrast Plato, *Euthd.* 278–282, *Smp.* 204e–205a.

[39] This 'naturalizing' of your *daimôn* does not go with a reductive or dismissive attitude to the gods of popular religion; fr. 175 talks of the gods giving things to humans. But these are moralized gods; fr. 217 says that only those who hate wrongdoing are dear to the gods. The latter sentiment is one shared with Plato.

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Chapter 14

Democritus and the Explanatory Power of the Void

Sylvia Berryman

To Alex, with deepest gratitude

Between Chapters 7 and 8 of *Physics* Book IV, Aristotle seems to commit a *non sequitur*. From a previous discussion about the necessity for void as a precondition for change, Aristotle abruptly turns to criticize an argument that the void is an *aition* of motion, specifically of motion upward or downward: he replies that void cannot be the *aition* if simple bodies have upward and downward motion by nature. The difficulty is to know how to understand the term *aition* at 214b15: Aristotle is often read as attacking the claim that void is no mere *condition* but *the explanation* of motion.[1] Ross (1936, pp. 587–8) states this interpretation succinctly:

> Aristotle's argument here is not convincing. The supporters of the void put it forward as an αἴτιον (necessary condition) of locomotion (213b4). He replies that it cannot be an αἴτιον (determining cause) of locomotion in any particular direction. The ambiguity in the meaning of αἴτιον makes the argument worthless.

While Aristotle clearly thinks the atomists attribute to void an explanatory role it does not have, he does not treat his opponents' view as paradoxical. We should hesitate to read Aristotle as saying that the atomists hold the absurd view that void is an efficient cause of motion, or even that it is a sufficient condition. Ross' term 'determining cause' is a convenient label to describe the view Aristotle attributes to the atomists. Let me call 'determining cause' any factor that accounts for the occasion, direction and extent of motion, with no assumption that it exhausts the necessary conditions. I undertake to give sense to this idea that void is a 'determining cause' of motion while avoiding the problematic claim that it is an efficient cause.

Translation of *Physics* IV.8 214b12–215a1

214b12–17: Void can't be responsible for motion[2]

Let us go back to saying that there is no such separated void as some people maintain. If each of the simple bodies has by nature a certain motion (for example, fire upwards, earth downwards and towards the center), it is clear that the void cannot be responsible for the motion. For what then *will* the void be responsible? It is thought to be responsible for change in respect of place, but for this it is not.

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[1] Guthrie takes Aristotle to read the atomists as treating void as a 'sufficient cause,' Guthrie, 1969, p. 399; likewise Algra, 1988, p. 177. Hussey consider whether Aristotle is rejecting void as a final cause of natural motion: Hussey, 1983, p. 128.

[2] The translation is by Hussey, 1983, slightly modified. The organization of the arguments has been changed: headings in bold indicate my interpretation. I am grateful for questions from Allan Silverman and David Hahm, which helped in clarifying the structure of the argument.

214b17–24: Same argument holds for 'place deprived of body' and 'separated place'
Again, if when there is void, it is something like place deprived of body, where will a body, placed in this, move to? It cannot be that it moves into the whole [of the void]. The same argument applies to those who think that place is something separate into which a body moves: how will a body placed in it move or rest? The same argument fits both in the case of upward and downward and in that of the void, with good reason; for those who assert that there is void make it place.

214b24–7: Difficulty of being *in* separated place or void
And in what way will [a body] be *in* either place or the void? It does not work out, when some body is placed as a whole in a separate place, which persists; for the part, if not placed separately, will not be in place but in the whole.

214b28: No void without separated place
Again, if place is not [separated], then neither will void be.

214b28–215a1: Indifference problem
Though some say that there is void because it is necessary if there is to be change, in fact, if one considers carefully, it is rather the opposite that results: that if there is void it is not possible for *anything* to move. Just as some say that the earth is at rest because of symmetry, so in the void too [a body] must be at rest, there being nowhere for it to move to more or less [than anywhere else], since the void, as such, admits no differences.

Aristotle's Strategy

Aristotle's overall strategy in Chapters 6 to 9 is to claim, not only that void doesn't provide the explanation sought, but that motion is moreover impossible in a void. The impossibility is reinforced by showing how neither Aristotelian natural motion nor Aristotelian projectile motion could happen in a void. Neither of these reinforcements would stand alone: the latter argument based on the proportionality of speed was shown to be fallacious by Philoponus; the former, in that it apparently depends on accepting the Aristotelian account of natural motion, would be ineffectual against an opponent who does not share Aristotle's view.

Some commentators take the introduction of the Aristotelian dichotomy of natural and nonnatural motion after the passage cited to be *elucidating* the above passage. Aristotelian natural motion clearly requires differentiated places; if nonnatural motion is parasitic on the concept of natural motion, as Aristotle argues, both would be impossible in a void.[3] However, there is no need to suppose that Aristotle simply relies on his own account of natural motion in the passage cited above, rather than making only the more general claim that motion in a void is impossible because void is everywhere the same. Others suggest that the reference to the upwards and downwards motion of fire and earth in the passage cited doesn't depend on the doctrine of natural motion, but is only to question whether void could be responsible for *differential* motion, that is, motion in a given direction.[4] On this reading the *explanandum* is not why Aristotelian natural motion occurs – that is, by nature, not by void – but more simply how bodies could move in specific directions like up and down, if void is meant to be the *explanans*. Note that the reference to the difficulty of 'up and down' in a void is said to apply equally to

[3] It still needs to be shown why void couldn't explain natural motion. Furley thinks that natural motion couldn't occur through a void in which there are no defined places: Furley, 1989, pp. 8–8. He points out that the atomists cannot make sense of the notion of a centre in an infinite void: Furley, 1987, pp. 191–2. Hussey suggests a different reason why the Aristotle might think the void can't account for natural motion, in that natural place has a kind of power, which void couldn't have: Hussey, 1991, p. 239.

[4] Solmsen, 1960, p. 137; Cherniss, 1971, p. 151; Furley, 1989 p. 87; Makin, 1993, p. 108.

motion or rest at 214b22. I take sections 214b12–17 and 214b17–24 to apply a problem to two conceptions – place deprived of body and separated place – and not to be raising two different arguments – natural motion and indifference – against the void.[5]

The Aristotelian dichotomy of natural and nonnatural motion, then, need not be central to the argument of the passage cited. Indeed, if it were, the text would be blatantly redundant.[6] The indistinguishability of places in a void is common to this passage and the argument from natural motion, but it is not necessary to introduce the dichotomy of natural and nonnatural motion to recognize a problem with distinguishing places in a void. I propose that Aristotle's objection throughout this section is only the more general problem that the void, because of its lack of differentiation, cannot be responsible for motion. But if the passage above is not about natural motion, what claim might it be designed to answer?

The only clue as to how Aristotle's opponents might think void is responsible for motion is the claim made later at 215a22–3, that things go into the void *because of its yielding*.[7] Void's lack of resistance has somehow to figure in his opponents' account. This is *prima facie* peculiar, as the atomists are elsewhere reported to say that motion happens by the mutual striking of bodies: mutual resistance, *antitupia* or *allêlotupia*, occurs in several reports.[8] Yielding seems to be the antithesis of resistance. Sambursky notes evidence in Plato and in Sextus' report of Epicurus that the two ideas are explicitly opposed.[9] However void is conceived, then, there would be something inherently paradoxical about calling void an agent of change if agency is identified with the striking of bodies against one another.[10]

We shouldn't, then, release Aristotle from a charge of unfair argumentation at the cost of saddling his opponent with a peculiar view that the void, or its 'yielding,' is the efficient cause of motion.[11] (This is apparently how Aristotle's student Eudemus understands it.)[12] The problem, again, is to find a plausible view for the atomists, that the void is a 'determining cause,' but not an efficient cause, of motion.

Is Democritus a 'Mechanist'?

Before proceeding further, an objection needs to be anticipated. I have been assuming that it would be hasty to attribute to the atomists the view that void is an efficient cause of motion.

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[5] As Hussey's numbering might indicate: Hussey, 1983, p. 34.

[6] There are two readings in the manuscripts at 215a2, *πρῶτον μὲν οὖν ὅτι* and *ἔπειθ' ὅτι*: the latter signals a new argument. Ross prints the latter, following Simplicius: Ross, 1936, p. 588.

[7] *ἔτι νῦν μὲν εἰς τὸ κενὸν διὰ τὸ ὑπείκειν φέρεσθαι δοκεῖ· ἐν δὲ τῷ κενῷ πάντῃ ὁμοίως τὸ τοιοῦτον, ὥστε πάντῃ οἰσθήσεται. Ph.* 4.8, 215a22–4.

[8] For example, *Δημόκριτος τὰ πρῶτά φησι σώματα … κινεῖσθαι κατῷ ἀλληλοτυπίαν ἐν τῷ ἀπείρῳ* (Aetius 1.12.6); *Λέγει μὲν περὶ Λευκίππου τε καὶ Δημοκρίτου· οὗτοι γὰρ λέγουσιν ἀλληλοτυποῦσας καὶ κρουομένας πρὸς ἀλλήλας κινεῖσθαι τὰς ἀτόμους* (Alex. *In Metaph.* 36.21); *Δημόκριτος τὴν ἀντιτυπίαν καὶ φορὰν καὶ πληγὴν τῆς ὕλης* (Aetius 1.26.2; = fr. 323 Luria). On whether a report (Simplicius *In DC* 583.20) that atoms move by force is a denial that they have weight, see O'Brien, 1981.

[9] *ἡ ἀντιτυπία μὲν τοῦ σώματος, εἶξις δὲ τοῦ κενοῦ M* 10.221: Sambursky, 1959; cf. O'Brien, 1981, p. 167.

[10] I take this point to be neutral between Sedley's two conceptions of vacuum: Sedley, 1982; cf. Algra, 1995, pp. 48–52.

[11] Makin takes this as the most obvious reading of Aristotle's answer: Makin, 1993, pp. 108–9. Furley emphasizes that for Aristotle, void can have no *dunamis*: Furley, 1989, p. 87.

[12] Simplicius *In Ph.* 533.12 (= fr. 75 Wehrli). Sharples takes 'cause' here to mean 'making such movement possible': Sharples, forthcoming. Löbl reads Eudemus' report as suggesting that Democritus attributes causality to the void: Löbl, 1987, pp. 138–9.

This might seem to be working too hard: it has been objected that the early atomists are not such strict 'mechanists' as they are sometimes thought to be. Could this mean that they might not have taken such a claim to be absurd? Ulrike Hirsch recently argued against assuming that Democritus' approach is mechanistic and antiteleological (Hirsch, 1990, pp. 225–44). Should this challenge give us pause?

It is certainly true that the term 'mechanistic' has anachronistic associations (see Furley, 1987, p. 13), and Hirsch is right to urge caution against reading later ideas back into Democritus. A key element of Hirsch's critique of a way Democritus is often characterized is that there was no clear statement at the time of a teleological world view for Democritus to be reacting to.[13] For present purposes, the issue is only how consistently the atomists ascribe motion to the striking of bodies against one another: for this, there is no need to suppose that the atomists were rejecting teleological explanation *per se*. One of the positions Hirsch takes issue with, that of Mourelatos in 'Democritus: Philosopher of Form' (1984), in fact addresses the concern about anachronism, inasmuch as it suggests a background against which the early atomists might have developed a view about the causes of atomic motion. Mourelatos suggests that Melissus' argument that form cannot arise from nothing provides the requisite background for the notion of 'conservative transformation,' the idea that the arrangement of atoms no more than their substance can be taken to come from nothing (Mourelatos, 1984, p. 119). It might be in response to the Eleatics that Democritus formulated a view wherein the rearrangement of atoms can be seen to arise from previous configurations and motions.[14] Without supposing that the early atomists ever formulated anything like laws of motion, they might reasonably be taken to think that the striking of atoms against one another offers an efficient cause of atomic motion in a way that a void space cannot.

Here, for simplicity, the motion of the cosmic whirl and questions arising from the explanation of living organisms will be set aside:[15] the question remaining is whether the atomists consistently hold that motion is caused by atoms striking against one another. The main evidence sometimes raised against this is the principle of 'like to like.' If this is understood as irreducible attraction drawing bodies together, the atomists would not take all motion to be caused by the striking of bodies. If so, why should they not think that void is an efficient cause, 'attracting' atoms just as atoms attract each other? The answer is that the motion of likes to likes does depend on the striking of bodies. Democritus needs to explain why the collision of atoms moving randomly in a void should result in the emergence of clustering. The phenomenon suggests that there must be some principle of sorting, by which atoms of similar kind cluster. The examples suggest that the sorting is not by similar quality but similar size and shape: exactly those factors operating in collisions are those that govern sorting.[16] Democritus' analogies are to bodies already in motion: pebbles are riffled by the tide, grains tossed by the winnower.[17] 'Like to like' need be

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[13] Much else in Hirsch's paper deserves attention, and I hope to address the point about anachronism elsewhere. Barnes, 1984 discusses evidence that Leucippus rejected teleology.

[14] See Mourelatos, 1981; Mourelatos, 1987; Mourelatos, unpublished. Hirsch recognizes the importance of the Eleatic background in understanding early atomism.

[15] On the latter I follow Mourelatos, 1987, p. 162. Balme argues that ignorance of the laws of motion would have made a mechanistic view implausible: Balme, 1941, pp. 23–8; cf. Edmunds, 1972; McKirahan, 1994, p. 326.

[16] Sextus Empiricus *M* 7.117–18 (= fr. 316 Luria). The exception is the reference to birds flocking, and is set aside as it involves animal behavior. Furley, 1989, p. 79, thinks that the movement of likes is described 'as if' there were a force of attraction; cf. Furley, 1987, p. 142. On analogies, see Lloyd, 1966, pp. 384–420.

[17] Hesse reads this as mechanical since it uses the 'technique of centrifuging': Hesse, 1961, p. 53. I am not assuming this, just that mutual striking accounts for the motion. On magnetism, see Berryman, 1997.

no more than an observation that similar sizes and shapes cluster together under such circumstances. More explanation might be offered: that smaller bodies sift down through the gaps between larger ones and so travel further, while the compatibility of the hooks and barbs on atoms of similar size explains clustering.

This distinction between the sorting at the phenomenal level and the action of invisible atoms will be of service in understanding how the void might seem to cause motion. The position Aristotle attacks can, I suggest, be understood as the claim that void is a 'determining cause' – but not an efficient cause – of *macroscopic* motion. The explanation depends on efficient causation by *atomic* motion. How this argument would work requires a closer look.

The Indifference Argument

As I read the passage from 214b12–215a1, Aristotle seems to reject the atomists' view because of the lack of differentiation in a void. There is an argument from as far back as Anaximander that the earth stands still because any factors inclining it to move would be equal in every direction. A brilliant piece of reasoning, the equipoise argument – a form of indifference argument – both combats any tendency to extrapolate from the observation that heavy bodies fall to the suggestion that the earth must fall, and suggests that the onus of explanation should lie in showing what might cause the earth to move. The mere presence of a surrounding space in which to move, the argument implies, is not sufficient for motion.[18]

Aristotle seems to have a parallel objection to motion in a void from its lack of differentiation. Any account of place or void as separate from the bodies in it would, Aristotle thinks, have no way to distinguish particular places and hence no way to say 'here rather than there.' Void has no defined places, so cannot be responsible for motion in a given direction (214b12–17). In a void, however conceived, there are no defined places that bodies could be said to move *to* or rest *at* (214b17–24). Without defined places, a void has no places *within* it (214b24–27), that is, no distinction between part and whole. Place can only be thought to be void if it is conceived of as separate from bodies in place (214b28), but would thus have no internal differentiation. Because there are no defined places, a body can't be said to move in a void (214b28–215a1).

Aristotle claims that void cannot account for motion because of its lack of differentiation. But what argument might this be responding to? Aristotle later trails a red herring about void being a cause of upward motion because of differing densities (*Ph.* IV.9, 217a6–8). He seems to suggest that void theorists take the greater concentration of void in a rare body to be the efficient cause of upward motion. Aristotle objects that if the weight of bodies explains their fall, it should not be the greater amount of void but the lesser proportion of matter that is responsible for the rising (*DC* IV.2, 309a1–14: see Thorp, 1990, pp. 149–66). This isn't the argument at play in chapter IV.8, since Aristotle here raises as an objection that motion up and down could not be explained by the void. His opponents must have claimed that void is a cause of motion generally, and not specifically of motion up and down.

I think there is another way the atomists might have attributed a role to void, which makes void a 'determining cause' of motion, in my sense, without attributing efficient causality to it. The basic principle is that of 215a22–3, that things go into the void 'because of its yielding.' Given the motion of detached atoms constantly bombarding each other, the overall tendency of a mass will be in the direction of least resistance. Recall the notion of 'like to like' and the strategy of using atomic motion to explain perceptible effects. Constantly moving atoms are repelled from densely crowded areas, so that a mass will tend to drift in the directions where

[18] On this see Kahn, 1960, pp. 76–81; Makin, 1993, pp. 101–5; Hankinson, 1998.

there is less resistance. Thus the presence of a void, merely because it offers no resistance, explains why bodies move at a certain time, in a certain direction and to a given extent.

Note that the drift does not explain the motion of individual atoms but of a cluster of atoms as a whole. If a macroscopic mass of atoms is next to a void space but surrounded by bodies on other sides, the claim is that the mass, insofar as it is composed of independently moving particles, will tend to drift in the direction that offers no resistance. This explanation depends on the fact that individual atoms will be repelled from densely occupied areas, so that the mass seems to gravitate towards the void. The void accounts for the occasion, direction and extent of motion, but it is not, and is not thought to be, an efficient cause (see Berryman, 1997).

It would be a mistake to miss the sophistication of this argument and assimilate it to the more general claim that void space is a necessary condition of motion. For one, it does not claim to establish the existence of void, but merely shows how differential concentrations of void determine the occasion, direction and extent of motion. For another, it depends on a distinction of atomic and macroscopic behavior; third, it accounts for an effect that could not be explained away as circular mutual replacement. Void does not initiate the motion of atoms, but nonetheless explains why a body moves when, where and as far as it does.

Suppose Democritus had advanced this argument about the drift toward a void. The crucial point is that the relative concentrations of void do the work. The indifference argument – that void has no differentiation and hence can't have differential effects – rather misses the point: it is the relative concentration of void in various directions that provides the differentiation. Aristotle's objection would, however, be grounded in a real difficulty. He might reasonably have thought that in an infinite void, relative concentrations of void cannot be compared because the ratios are to an infinite quantity. As the void is infinite in every direction, he might plausibly object, it is no more void in one direction than another. The atomist argument would need to be refined to say that only the relative *local* concentration of void is at issue.

A mass of atoms will drift in the direction, on the occasion and to the extent that it encounters fewest nearby atoms offering resistance. A greater concentration of void is shorthand for a lesser concentration of atoms. It might be said that atomists ought always to explain changes in terms of bodies acting on one another: they should, strictly, explain the resistance to motion of a mass in the direction of greater concentration of unyielding bodies. But it would be an understandable shorthand to say that the void is a determining cause of the drift, since the relative concentration of void accounts for the occasion, extent and direction of motion. The atomists are not disturbed at the absence of an efficient cause at the perceptible level, as they take the action of imperceptible bodies to be the efficient cause.

If this gives a charitable reading to Aristotle's report and a plausible view to the atomists, it further needs to be shown that it is a view Democritus held. Explicit evidence for this argument is found in Lucretius, who points out that a void space in one direction would offer no resistance to moving bodies, so that atoms gravitate towards a void under the pressure of the continual collisions with bodies in all other directions. He compares this to a sail driven by wind.[19] Epicurus uses the 'lack of resistance' to explain the motion of atoms through the void, and the 'drift' argument seems to be implicit in the argument against having finite atoms in an infinite void, since, without sufficient collisions to bring atoms together again they would simply scatter into an infinite void.[20]

Only the one sentence in Aristotle's discussion suggests the use of this principle by the early atomists: the claim at 215a22–3 that things go into the void *because of its yielding*.

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[19] Lucretius *DRN* 6.906–1089: see also the introduction to Hero of Alexandria's *Pneumatics*. I discuss the possibility that Lucretius' 'drift' account lies behind Democritus' account of magnetism in Berryman, 1997, pp. 153–5.

[20] *Letter to Herodotus* 42–4. Noted by Furley, 1989, p. 157.

Some commentators read this as an argument treating void as an efficient cause of motion, with Aristotle objecting that, in a void, bodies would move in all directions *at once*.[21] But we needn't think that a single body moves in many directions simultaneously. Ross advances another interpretation of the 'yielding' claim, pointing to Simplicius and Philoponus as authorities for reading this as an argument that a body already moving in a certain direction would go faster through a medium with more void spaces.[22] He reads the yielding passage as a proportionality of speed argument, and takes Aristotle's objection to be that void, because it has no differentiation, would not impede bodies at all. Ross finds this 'unconvincing,' unsurprisingly: the indifference of void makes no sense as a response to a proportionality of speed argument. But this is not how Simplicius understands the argument; and while Philoponus does read the yielding argument as about proportionality of speed, his argument is not Aristotle's.

Simplicius and Philoponus both interpret Aristotle as answering an argument that void is a cause because of its yielding and that the yielding is greater in air and water than in earth because of the greater amount of void space present. Philoponus does consider that the 'yielding' argument be understood as a case of the proportionality of speed argument: void bodies would move either instantaneously or in every direction (*In Ph.* 645.22–5). However, only the first disjunct would be applicable to a proportionality of speed argument, whereas Aristotle offers only the second. Simplicius does not think that Aristotle's answer is about proportionality of speed or scattering,[23] but that an *infinite* void has no differentiation (*in Ph.* 670.31–671.3). A possible reason for introducing 'infinite' here would be to undercut a claim that greater or lesser concentrations of void could explain the motion of bodies: Simplicius could well be reading Aristotle's opponent as making a 'drift' argument that bodies tend to move in the direction of a rarer medium where there are more void spaces. Neither commentator offers grounds for thinking the yielding argument is about proportionality of speed.

It should, I think, be read as addressing the claim that bodies tend to drift in the direction of a void.[24] Aristotle objects that if there were void in all directions and yielding were supposed to explain motion, the atoms would scatter rather than exhibit a marked drift. If void were indeed undifferentiated, this would be so. It is only if there were a way to distinguish relative local concentrations of void that it makes sense to think that bodies drift in the direction of least resistance in a void.

Conclusion

The atomists' drift account of the motion of macroscopic bodies, I have argued, only seems to attribute efficient causality to the void, inasmuch as the macroscopic body has no other efficient cause acting on it. In the case of relative speeds of projectiles, there is no propensity to call the void the 'cause' of the greater speed in a rare medium, because there is an efficient cause already apparent of the projectile's motion. In the case of 'drift,' a description of the phenomenal effect could take the void as a 'determining cause,' in the limited sense of accounting for the occasion, extent, and direction of motion. But in atomist theory this would be explained by efficient causal action of imperceptible atoms. In their terms, it should not be surprising that

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[21] Cherniss, 1971, p. 151; Hussey, 1983, p. 130; Sorabji, 1983, pp. 149–50.

[22] Ross, 1936, p. 589. Wicksteed and Cornford, 1927, p. 351, think the passage is about the motion of an individual projectile, but fail to make much sense of Aristotle's response.

[23] See Simplicius *In DC* 295.14–20. For Cleomedes' use of the scattering argument, see Sorabji, 1983, pp. 150–4.

[24] In contrast to the suggestion by Apostle, 1969, p. 254 that it makes no difference to the 'yielding argument' whether or not the body is already in motion.

a macroscopic body can move without an apparent efficient cause, given their view that phenomena are caused by the striking of atoms moving in a void. The atomists have, I think, a plausible account of the tendency of bodies to 'drift' into a void.[25]

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4

THE SOPHISTS

Chapter 15

Natural Justice?

Paul Woodruff

If the same thing were naturally fine or wise for everyone
at the same time, people would have no quarrelsome debates.
But as it is, nothing is ever the same or even similar for mortals – except in name.
– Eteoclês, in Euripides *Phoenician Women* 499–502[1]

Nothing I can say or do would come close to repaying – or even to declaring – how great a debt I owe to Alex Mourelatos for his support, which began with the start of my professional career. I continue to acknowledge Alex as mentor, friend, and upholder of the highest standards of scholarship and clarity of thinking.

My question is simple: was there before Plato a theory of natural justice? My answer is not simple. We catch tantalizing glimpses of such a theory, but on the whole the search is disappointing. What we find, instead of a theory of natural justice, is a loosely conceptualized inquiry into universal justice that is not based on nature. The difference is this: a nature-based theory would be able to serve as trump in debates of the sort Eteoclês has in mind. But the theory we will find is soft around the edges, pragmatic, and never exempt from empirical revision. Such a theory cannot put a stop to debate about what is just, because the theory itself calls for inquiry and debate to continue. It is, nevertheless, very like a theory of natural justice, and it provides the occasion for debates which usefully enlarge its central notion of justice.

We should be surprised if we found a full-fledged theory of natural justice before Plato, for two reasons. First, early Greek thinkers generally pitted nature against justice. The Cyclopes of the *Odyssey* were living in what Homer apparently considered the state of nature, and they know nothing of justice. Following in this tradition are the Athenians of Thucydides' Melian Dialogue, the sophists satirized in Aristophanes *Clouds*, Democritus, and Antiphon, all of whom see justice as an imposition on nature, for better or for worse, rather than as a natural phenomenon.[2]

Second, the thinkers who most cared about justice who might have developed a theory of natural justice – I have in mind Protagoras and others called sophists – mostly limited themselves to an empirical approach, and an empirical approach will not touch the concept for which Eteoclês is reaching. Ancient Greek thinkers before Plato were well aware of diversity in cultures and of the threat this poses to the very idea that there could be a natural basis for morality.[3] If experience of cultures is our only guide, we will never find a card that could serve as trump in a debate over which of two conflicting cultures is backed by natural justice.

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[1] Cf. Plato *Laws* 889e. Unless otherwise indicated, translations are from Gagarin and Woodruff, 1995, except for Plato and Aristotle, which I have rendered for this chapter. I am grateful to Michael Gagarin for many helpful conversations on this and related topics.

[2] The Athenians in Thucydides' Melian Dialogue (5.84–114) argue that in this context, the law of nature prevails over claims based on justice (especially 89, 105). Weaker Argument stakes out a similar position for nature over conventional morality in Aristophanes *Clouds* 1075 ff. In a similar vein, Democritus said, 'By nature ruling belongs to the stronger' (DK 68 B 267, Gagarin and Woodruff, 1995, p. 157). For Antiphon, see the translation in Gagarin and Woodruff, 1995, pp. 244–7 and Ostwald, 1990.

[3] Herodotus tells a famous story to illustrate the rule of custom, 3.38.

In view of this difficulty, why even look for a theory of natural justice before Plato? Because, although we cannot find a text that states such a theory, we have lots of evidence that the subject was under discussion and a little evidence that someone (we don't know who) did actually announce a theory of natural justice. The prevailing concept of nature was sufficient to carry such a theory at the human level,[4] and, at the cosmic level, the idea of natural justice was already well established.[5]

Some inducement for the search comes from poetry, such as my epigraph above, and more from the care Plato and Aristotle take to refute claims about natural justice with which they disagree. Plato takes on the jungle-justice of Callicles (*Gorgias* 482c ff.), and Aristotle defends slavery against an anonymous attack based on natural justice, summarized at *Politics* 1253b20–23. We have no text of Callicles, and we do not even know that he was an historical character. As for the opponent of slavery, he left us no surviving text and precious few clues about the content of his theory. It is as if the dogs are barking at something we do not see in the woods and all we may reasonably do is hypothesize what it was that aroused them.

A second reason for the search is philosophical. We may learn something beneficial to ourselves from this inquiry. Nature-based ethics is not in good repute among philosophers of our time, especially among those who care about reforming traditions, because of the observed tendency of conservatives, both ancient and modern, to defend the *status quo* as natural. Of this tendency, Aristotle's defense of slavery is emblematic, and such arguments as Aristotle's seem bad in every sense of the word.[6] We will find a better model than this for reasoning about nature and justice, and this is fortunate because without such a model we may have to fall back on one form of relativism or another.

The line of reasoning taken by the reforming opponent of slavery was of a different order from theories of natural justice. I will show that the sort of theory we find before Plato – a theory of universal justice – is both better grounded and morally superior to what Eteoclês wanted and later philosophers attempted to provide. The hope of Eteoclês is unwise: we should cherish quarrelsome debates on moral issues. Ambitions to hold a trump card do not become a human being. The chorus of Sophocles' *Oedipus Tyrannus* are right to inveigh against the tyranny that grows from the hubris of those who believe they hold trump cards in debate:

> And so I pray the god will not dissolve
> What is good for the city, our wrestling contest
> – Sophocles *Oedipus Tyrannus* 880–1[7]

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[4] Before Plato, even sophists held nature that is non-relative: 'Whatever we see has a nature, not the nature we wish, but the one each thing turns out to have' – Gorgias, in the *Helen* 15. Nature is, moreover, not readily apparent, but known only to reason or wisdom (see, for example, Heraclitus, DK B 112). A nature-based theory of justice at the human level would have to look beyond what is conventionally just and what is widely believed to be just, although some thinkers evidently held that justice and convention coincide (see *Bacchae* 893–6). On the antithesis between nature and convention (*phusis* and *nomos*) – an antithesis which did not represent consensus – see the elegant discussion by Ostwald, 1992, pp. 352 ff.

[5] 'These ideas are from the beginning so intimately linked that, in lands where mythic speculation is highly developed, a single term for "law" normally applies to ritual, to morality, and to the natural order … Such ancient conceptions show that it is not the assimilation of Nature and Society which philosophy was called upon to establish, but rather their separation from one another.' (Kahn, 1964, p. 192). See also Kahn, 1979, pp. 159–61, on cosmic justice in Heraclitus.

[6] The case is elegantly made by Annas, 1997.

[7] Wrestling contest: *πάλαισμα*. Jebb translates l. 880: 'But I pray that the god will never quell such rivalry as benefits the State.' Most scholars take this as referring to democratic contests for political power, but Sophocles' audience would not have distinguished this from contests in solving riddles a city must face concerning what is right and wrong – especially prominent in the context of the great riddle-solver Oedipus.

Natural Equality?

I begin by looking in the most likely area for natural justice: the debate about human equality. In a book review written early in his career, Mourelatos laid down a set of distinctions essential to my subject today,[8] rightly criticizing H. C. Baldry, author of *The Unity of Mankind in Greek Thought*, for vagueness about the meaning of his own title. Towards the end of the review, Mourelatos distinguishes descriptive from normative principles that might be meant by 'the unity of mankind'; after that he proceeds to mark the difference between modern democratic or egalitarian ideals and the sorts of unity for which Plato and Aristotle, respectively, argued:

> Mankind constitutes an organic system in which every man has his place or function, some being more centrally or characteristically *human* than others.
>
> There is a single nature, form, or essence that constitutes the *telos* of all individual men.

These, he says, should be recognized as 'the two strongest statements of the *unity* of mankind – allowing for the ambiguity of the term – received from antiquity.' He wrote this in 1967. Since that time, much has been written by good scholars about the idea of equality in antiquity, but nothing has challenged the basic truth of what Mourelatos implied in that review. We look in vain for a philosophical theory in the classical period that would support anything like what we think of as the modern ideal of a human equality based on nature or divine dispensation.

On the other hand, we find evidence that ancient Greek thinkers in the fifth century were interested in an idea of equality that is less sophisticated than those of Plato and Aristotle. The most impressive evidence is Aristotle's defense of slavery:

> Others think that it is contrary to nature to be a master, because the fact that one man is a slave and another free is by convention (*νόμος*), whereas in nature they do not differ at all, which is why it [slavery] is not just either; for it is the result of force. (Aristotle *Politics* 1253b20–23)

Who are these others who seem to believe in the natural equality of human beings? We do not know. To make matters worse, we do not know for sure that the issue is about human nature. It may be about the nature of the Greek people. There was certainly a noisy dispute in the fifth century about whether the enslavement of the Helots by the Spartans was just; but we cannot rid ourselves of the suspicion that this was a question not of human nature but of ethnography (as there appears to have been a movement at this time against the enslavement of Greeks): were the Helots Greeks in the proper sense? Moral factors enter the discussion as well. Plato, for example, touches the issue of slavery, without appealing to nature:

> The status of the Helots of Laconia – the controversy as to its merits and demerits – is probably the most puzzling problem of Hellenic life … slaves have often enough before now shown themselves far better men in every way than brothers or sons. (Plato *Laws* 776c-e; cf. *Republic* 469b, against enslavement of Greeks)

Plato's point, that slaves may be superior in virtue to free people, is not expressed as a consequence of *nomos* or a violation of nature. But violations of nature are implied in discussions of slavery and class in Greek tragedy. A character of Sophocles says all are born equal, and a character of Euripides attributes inequality to *nomos*.

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[8] Mourelatos, 1967.

> One day showed us all to be one tribe of humans,
> born from one father and mother;
> no one is by birth superior to another.
> But fate nourishes some of us with misery
> and some with prosperity, while others are compelled
> to bear the yoke of slavery.
> – from Sophocles *Tereus*[9]

> The well-born and ill-born are one race,
> but time and *nomos* have brought about this haughtiness.
> – from Euripides *Alexander*, ll. 7–8[10]

The strongest statement of this kind is attributed to Alcidamas; and though he is not a pre-Socratic, we may reasonably suppose he is echoing a pre-Socratic sentiment when he says:

> God set all people free; nature has made no one a slave. (Alcidamas, from Aristotle, *Rhetoric* 1373b6)

Within reason, however, we cannot hypothesize a context in which Alcidamas or his source would have found grounds for arguing that this thesis holds universally for human beings; for all we know, the claim could have been local to the dispute about the status of Helots.[11]

A theory of human equality based on nature would undermine slavery only if it met certain conditions. It would have to be normative, and it would have to be strong enough to resist claims to mastership based on normal differences among human beings or upon acquired superiority. Natural equality, on the desired theory, would have to trump superior culture, education, or strength. That is why, as we learn from Mourelatos, it would have to be a normative notion of equality, not a descriptive one. By itself, being born equal does not suffice to defeat the claims of those who believe that their attainments justify their mastery over others.

Aristotle's lost opponent must have denied the superiority of Greeks over foreigners, because some Greeks had appealed to that in defense of slavery. The nearest thing we can find to a nature-based claim of equality between Greeks and foreigners is in the *Truth* of Antiphon:

> We have therefore become foreign to one another, when by nature we are all at birth in all respects equally capable of being both foreigners and Greeks. We can examine the attributes of nature that are necessarily in all men and are provided to all to the same degree, and in these respects none of us is distinguished as foreign or Greek. For we all breathe the air through our mouth and through our nostrils …[12]

Interesting as this is, it leaves open the possibility that Greeks have acquired, through culture or climate, superior attributes that justify their domination over foreigners. What we sought was a theory of nature-based equality strong enough to resist claims of acquired superiority. But Antiphon does not give us this.

Indeed, some sophists would think it in their interest to persuade their prospective pupils that superiority could be acquired. 'Just sign up for an expensive course,' one might say, 'and I as your teacher will make you superior, giving you both the power and the right to be master over others.' Plato shows us a Callicles who insists that nature gives the right of domination to superior people, and the larger context suggests that the superiority he has in mind can be learned from a sophist – as mastery of the art of words.

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[9] Gagarin and Woodruff, 1995, p. 56, text 24 (= *TGF* 591).
[10] Gagarin and Woodruff, 1995, p. 70, text 17 (= *N* 53).
[11] Cambiano, 1987, on whom my discussion of Aristotle's mysterious opponent heavily depends.
[12] Gagarin and Woodruff, 1995, p. 244, text 7, col. 2. See Ostwald, 1990, on the passage.

Plainly, natural-born equality is not enough. To explain Aristotle's opponent in these terms, we would need a theory of natural justice that would undermine slavery. Perhaps if we knew what natural justice is, we would see that it calls for a recognition of equality that is incompatible with slavery. Natural justice would be a natural virtue. And what sort of thing could be a natural virtue?

From Universal to Moral

Nature, as the ancient Greeks conceive of it, is not perfectly evident to human beings. It is, generally, a theoretical concept, and one that is fairly remote from empirical study. The literature of our period reflects two tests for what appear to be moral laws of nature – universality and longevity. This is plausible: if any moral principle is backed by nature, and if nature is universal and unchanging, then the principle would be universal and unchanging.

How could such a principle be known? The authors who apply the test seem to be appealing to experience – to the study of cultures spread out in history or geography or both. In order to bring the study of cultures to bear on the issue, however, we would have to assume that a natural principle would not only be right always and everywhere, but be recognized as right always and everywhere – not necessarily practiced or enforced, but honored in some fashion. I shall call this the Recognition Assumption. On this assumption, universal recognition would be evidence for rightness. Suppose that we find a moral principle to be honored by all the peoples of whom we have knowledge, and for all the times of which we have record. Then that principle would pass the test and should be accepted as natural. Reasoning of this kind seems implicit in the following texts:

> … and the general law being that of nature. For there is something of which we all have an inkling, being a naturally universal right and wrong … to which Sophocles' *Antigone* seems to be referring. (Aristotle, *Rhetoric* 1373b6–9)

> … the unwritten laws that bring shame on their transgressors by the agreement of all. (Thucydides 2.37, Pericles' Funeral Oration)

> The cost of these beliefs is light:
> Power lies
> With whatever thing should be divine,
> And whatever law stands firm in time,
> By nature ever natural.
> – Chorus, Euripides *Bacchae* 893–6

These texts cite morality that is supposed to be absolute and universal among human beings, and this runs against cultural differences well known to the Greeks. A more plausible version of the Recognition Assumption would try to set culture aside by claiming only that what is naturally right is recognized by all those who are untouched by education, on the grounds that education subverts nature and can subvert morality as well. 'We have good judgment because our education leaves us too ignorant to look down on our laws,' says the Spartan king Archidamus in an attack on education that many ordinary Athenians would have applauded (Thucydides 1.84).[13]

The Uneducated Recognition Assumption would limit the scope of the inquiry to beings who have been free of education and are, as we would say, in a state of nature. The best examples

[13] Translations from Thucydides are from Woodruff, 1993.

would be from the animal kingdom, but gods and large aggregates of human beings would do as well, as they are beyond influence of human education and customary law.

> But I think nature itself reveals this: it is just for the better person to have a larger share than the worse, and the more powerful than the less powerful. This is clearly so in many places, both among other animals and among [human] cities and races taken as wholes … (Callicles in Plato *Gorgias* 483c8–d4)

> If a man had a nature strong enough, I think he'd shake off all these written laws, these spells and incantations, these customs that violate nature. He'd shatter them and trample them under foot; he'd stand up and show himself to be our master – not our slave – and from that time on the justice of nature would shine out. (Callicles in Plato *Gorgias* 484a2–b1)

> Nature always compels gods (we believe) and men (we are certain) to rule over anyone they can control. (Thucydides 5.105, Athenians at Melos)

None of this can be right. Neither version of the Recognition Assumption could be a reliable way to arrive at moral norms. A description of animal behavior is no better than a description of human behavior for supporting a view about what is true, or about what true virtue requires. This inference from description (even of universal practices) to norm (or moral claim) is subject to three objections, which are fatal to a natural justice theory, but not (as we shall see) to what I will call a theory of universal justice.

First, the inference is at best provisional, because further research might turn up a people who at some time did not honor the principle in question. Such reasoning cannot provide a card that would trump the moral views of a dissident culture; if we find a culture that dissents from what we thought was natural, we should (by this reasoning) simply revise our view as to what is natural so as to accommodate the new evidence. Plato will correct this fault by denying that virtues are to be known by finding points of consensus, or, for that matter, in any other empirical way.

Second, the inference appears to rest on a weak assumption: that what is universally recognized as a virtue actually is a virtue. Truth is, of course, one hypothesis to explain recognition. To the question why people believe that justice is a virtue, one may plausibly reply 'because it is a virtue.' But such an hypothesis is not compelling, and it is weak in the absence of a theory that would explain why this particular truth should be believed by these particular people. Otherwise, we may suppose with equal reason that the universality of a putative virtue is due to factors that have nothing to do with truth (such as genetic inheritance). Plato will correct this fault as well, by claiming that virtues are what they are independently of what the multitude thinks of them. In seeking to know virtue, as a seeker after the truth, Plato's Socrates will insist that one must take only one's own opinions into consideration.

Third, the result is descriptive. To say that a putative virtue is honored in certain places is to describe it; the description leaves open the question of whether the virtue has been correctly described; worse, it leaves open the question of whether it is really a virtue at all. Plato's theory will be secure from this objection as well; Platonic virtues are known in ways that guarantee their normativity.

So far, I have merely extended Mourelatos' argument that there is no truly normative concept of natural equality before Plato; the same goes for natural justice. This result must be stated with an important qualification, however: *absent the gods*, there is no clear concept of natural justice in Greek thought before Plato. But the gods are rarely absent from Greek thought in the fifth century BCE.

Pre-Platonic notions of natural justice are often linked to the gods. If natural justice is the justice decreed by the gods, then its normativity would not be in question: natural justice would simply be the norm that the gods command. The example Aristotle cites from the *Antigone* fits this model; so does the following medical passage:

> Human beings laid down laws for themselves, without knowledge of what they were legislating about, but the gods put the nature of all things in order. (Hippocrates, *de Victu*, = DK 22 C 1)

One possible explanation for the universality and longevity of a virtue is that it is given by the gods. If any virtue that is universal turns out to be god-given, then the ancient believers in natural justice would have a defense against the objections I have just now raised. The descriptive result (universality, longevity) would count as evidence for an explanatory hypothesis that preserves normativity: the gods require humanity to cultivate the virtues they have provided for them. Consider a parallel hypothesis at work: a visitor to Britain would find that in every country on the island automobiles drive on the left; she would be right to infer that this is in fact the law in all of those places, and that this law was made by an authority higher than that of any local government. In the same way, if a visitor to earth found that all peoples on earth respect the dead, she would reasonably infer that they had been commanded to do this by an authority superior to that of any local power.

This inference is not what we want, however, for it only secures for universal justice the normativity of a command. Superior authorities may be wrong, and ancient Greek mythology does not reassure us that the gods would require of us only what is morally right, or instill in us only beliefs that are true. Tracing a concept to the gods is not enough to secure its morality, as Plato will show in the sophisticated argument of the *Euthyphro*.

Some fifth-century thinkers may have held that nature, rather than the gods, disseminated universal justice. This hypothesis would at least be independent of mythology. In the last section of this chapter I will show how the nature-hypothesis promises strategies for answering the three objections I gave above. First, however, I must review what sort of principle fifth-century thinkers believed to be universal.

Universal Justice

Pericles, in Thucydides, spoke of 'the unwritten laws that bring shame on their transgressors by the agreement of all' (2.37). The unwritten law of Greek nations, to which a number of other speakers appeal in Thucydides, is universal in a special sense. It cannot be common *practice*, because Thucydides illustrates one violation of this law after another. Pericles treats it as a common sense of shame, based on 'the agreement of all.' It is, then, a universal norm to which all are supposed to agree. By 'all', Pericles probably meant 'all Greeks', but other thinkers in this vein take the broad view that shame is truly universal, among Greeks and foreigners:

> *Hermione:* We do not live by the *nomoi* of foreigners in this city.
> *Andromache:* What's shameful brings shame, there as here.
> – Euripides, *Andromache* 243–4

Here are two principal requirements of the virtue[14] that is thought to be universal, in Thucydides:

> *Do not wage aggressive war:*
> It is not lawful to attack them first. (Archidamus speaking of Athens' request for arbitration, which the Spartans did not grant, 1.85)

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[14] For the purpose of this discussion, I will not distinguish between the requirements of justice, piety, and the lawful. The lines between these are somewhat blurred, but all three are represented by Thucydidean speakers as holding for city-states, and therefore as constituting something like a moral law of nations.

> Consent, then, to our punishing those who started the injustice, and agree to their paying the price to those who exact it in accordance with law. (Archidamus to the gods, on oathbreaking by the Plataeans, 2.74)
>
> The law that holds everywhere: piety allows one to repel an aggressor. (the Plataeans in defense of their actions, at 3.56)

Do not kill prisoners of war:

> The law in Greece forbids killing people who [hold their arms out as suppliants] … It will not add to your glory … to violate the common laws of Greece. (Plataeans at 3.58, 59, cf. Thebans at 3.66, 3.67)[15]

The Spartans, Plataeans, and Thebans who speak here may well have thought they had support enough from the gods for their claims about universal law. But our author Thucydides would want more. Although he plainly holds that reverence is a cardinal virtue (3.82), he has only contempt for people whose actions are guided by messages from the gods (5.105, 7.50), or who think that disasters are sent to human beings by the gods (2.54). Although much is unclear about Thucydides' own views, we can assert this paradox with a fair measure of confidence: he holds that the gods do not trouble themselves to punish people for failures of reverence, but that human factors suffice to explain how large-scale failures of reverence lead to destruction.

Thucydides' tale frequently takes the shape of a tragedy, as hubris leads to excess, and excess to destruction, but the forces of destruction that are unleashed by excess are entirely human: Sparta went to war out of fear provoked by the excessive growth of Athens; Syracuse defeated the Athenians because it was better governed and had good military leadership; Athens plunged into the losing war with Syracuse when excessive greed and ambition blinded the Athenians to good counsel. In a word, human nature takes the place of the gods in the tragic cycles of Thucydidean history. Outrageous behavior on the part of one city-state provokes an outraged response from others. In this pattern, the outrage of the gods would be redundant.

Thucydides' account of this pattern bears the hallmarks of empirical method. He does not claim to know human nature *a priori* as a single ineluctable fact about human beings, but as a complex set of patterns in human behavior that may be observed on the stage of history.[16] He finds that human events for the most part exhibit common causal principles, among which is this: violations of the common norms of piety and justice are destructive to social order; they lead down a spiral of degeneration to social and moral collapse. He gives his most detailed account of such a collapse for the civil war on Corcyra, but in a larger sense the entire history does the same work for the collapse of Greece into the war between Athens and Sparta, with the spread of satellite civil wars.

If he were forced into theoretical discussion (which he carefully avoids), Thucydides would probably defend his view in something like this way: piety and justice are universal in the sense that human societies must cultivate those virtues in order to survive intact. They are the glue of society. Dissolve the glue, and society comes apart.

This is not a theory based on a fixed account of human nature. It cannot be, for Thucydides believes that human nature shows itself differently on different occasions (3.82). True, he believes there are uniform principles that explain these differences, but those principles themselves are subject to exceptions. The uniformity Thucydides observes in human events holds merely for the most part (1.22); it cannot support the hard-edged claims of an *a priori*

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[15] Cf. Euripides *Children of Heracles* 966, 1011: 'by the *nomoi* of the Greeks it would have been unholy for the man who killed me.'

[16] See Reeve, 1999, for a brilliant discussion of the link Thucydides observes between excess greed or excess passion with bad judgment, and also for an illuminating discussion of the philosophical significance of Thucydides' account of the civil war on Corcyra.

nature-based theory. Thucydides is cautious, and for virtually every universal his history would seem to support, he somewhere tells of an exception.

Now the pieces are in place for a solution to the problems besetting the idea of universal justice. If human nature is such that human beings survive only in the context of society, and if human society is such that it survives only with the support of certain virtues, then we would expect to find those virtues distributed universally, or nearly universally, albeit in a variety of forms. The question whether justice is natural is parallel, on this theory, to the question whether language is natural. It is natural for a people to have a language that meets certain conditions for the survival of societies, but there is no particular language that it would be natural for all peoples to have. In the same way, it is natural for a people to recognize a concept of justice that meets certain conditions for the survival of societies, but there is no particular fine-grained concept of justice that it would be natural for all peoples to have.

Universal justice, on this theory, is neither entirely natural nor entirely the invention of culture. It is natural insofar as any group of human beings must develop some version of it within their culture in order to meet natural human needs; it is cultural in that it must be developed within a culture and will be developed differently in different cultures. Such a theory is attested for fifth-century thinkers interested in the origins of society. Here are the two principal texts:

> For if humans joined together, yielding to necessity, because they were by nature incapable of living alone, and so their whole way of life and the skills required for this end were developed – and if they cannot be associated with each other while living in a condition of lawlessness – for the penalty for lawlessness is even greater than for living alone – because of all these necessities, law and justice are king among us and will never be displaced, for they are strongly ingrained in nature. (*Anonymus Iamblichi* 20, 100.9 ff.)[17]

> Zeus therefore, taking fear that our race would be entirely killed off, sent Hermes to bring Reverence and Justice to the human race, so that Reverence and Justice would bring order to cities and be the communal bonds of friendship. (Protagoras in Plato *Protagoras* 322c)[18]

I said at the beginning that the theory I would find is soft around the edges, and this is certainly soft enough, whether in its Thucydidean form – as a theory about why societies come apart – or in its anthropological form – as a theory about how people come together to form societies. Either way, it will not serve to settle substantive moral debates between two cultures or even between two individuals. The theory I have found is far from what Eteoclês wanted. It is not a theory of natural justice.

It is, however, a theory of universal justice, and it promises strategies for defense against the objections I raised earlier to the idea of universal justice. First, it explains why such a theory should be provisional and open to revision on the basis of empirical research. Expanding knowledge of societies should lead to an expanded concept of what the virtues are that can hold a society together. Second, the theory explains why wide acceptance of a putative virtue should be evidence that it really is a virtue. The plausible hypothesis of the theory is that such a virtue is widely accepted because it succeeds in keeping societies going, and that its success is evidence for its being a virtue. Third, the theory straddles the gap between what is descriptive and what is normative. It calls for empirical study concerning the rise and fall of human organizations (of which Thucydides' *History* is an example), and its results are in part descriptive

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[17] The Anonymus Iamblichi is an unknown author of the late fifth or early fourth century BCE, whose work survives embedded in the *Protrepticus* of Iamblichus. See Cole, 1961.

[18] Although we cannot be sure that Protagoras is author either of this speech or of the theory contained in it, we can be reasonably confident that it represents views common among fifth-century Greek thinkers about the origins of society.

of the past, or of the range of societies. They have normative implications, however, relative to a certain goal, as does any description of success or failure. Only in this case the result should apply generally to human beings, since the goal is human survival. But what is meant by 'survival'? 'As if to breathe were life,' complains Tennyson's Ulysses, and we know that we require a more robust concept of survival – survival *as human beings*.

This brings us to a weakness in a theory of universal justice as grounds for human survival: it must assume from the outset a normative concept of survival, and therefore it cannot be entirely a product of descriptive anthropology or history. Human beings might find ways of staying alive without any virtue we might care to mention, but they might do so by living a life that our fifth-century thinkers would consider inhuman. An adequate theory, then, would have to defend its standards for survival, and this defense could not consist simply in descriptions of existing societies. It would have to be normative. Fifth-century anthropologists for whom we have evidence do not appear to have been aware of the need to examine this normative element. An Aristotle or a Plato would have a way to fill the gap. Mourelatos was right about the importance of Plato and Aristotle to discussions along these lines. Before them, so far as we can tell, no thinker was clear about the normative content of 'human' in claims about what it is to live a human life.

Thucydides derives some strength, however, from the empiricism which protects him from adopting elaborate theories of human nature – theories that would generate such deplorable results as Aristotle's defense of slavery. Only a very thin account of human survival is necessary to appreciate Thucydides' remarks on civil war, which is destructive of what virtually anyone would consider a civil life. We do not need theories as grand or as dangerous as those of Plato or Aristotle before we agree with Thucydides and other pre-Platonic thinkers in supporting basic virtues which, we find, guard us against the most devastating forms of internal conflict. Indeed, the less we assume about what is natural in human life, the less we will have to fight about. The virtues of an empirical approach are not only cognitive; they are political as well.

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Chapter 16

Gorgias on Thought and its Objects*

Victor Caston

Und es ist kein Geschwätz, wie man sonst wohl glaubt; seine Dialektik ist objektiv.
– Hegel, 1833, p. 37

Gorgias' *On Not Being* is the Charybdis of Presocratic philosophy. If taken at face value, it undermines the foundations of philosophy and life itself, by arguing, first, that there isn't anything; second, that even if there were something, it could not be known; third, that even if something could be known, no one could inform anyone else of it. Yet there is at least one thing, a treatise, that contains demonstrations for various conclusions, written in order to inform us, thus undercutting all three claims. How are we to construe a text charitably whose arguments are so obviously self-refuting in this way?

This question alone makes it implausible to think that Gorgias endorses a particularly dark form of nihilism, the result (as some would have it) of philosophical despair and world-weariness.[1] Gorgias would have to be not merely disconsolate, but quite dull-witted, to have missed the conflict between his presentation and its content. Similar considerations put in doubt any attempt to take Gorgias as a kind of relativist.[2] The self-undermining character of

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* It is a special pleasure to dedicate this essay to Alex Mourelatos, who has been a model teacher, a caring mentor, and a true friend. This piece is a very small return for all that I have gained and learned from him.

[1] The classic statement of this position can be found in Diels, 1884, who argues that after a period of pursuing Empedoclean physics, Gorgias entered a 'period of doubt, or rather despair,' during which Eleatic dialectic led him to reject natural science and write *On Not Being*; but unable to sustain this 'barren Nihilism,' in which 'the world of being had dissolved into empty appearance,' he turned to rhetoric, in an effort to turn 'appearance into reality in the beliefs of his audience' (pp. 371–3; cf. 368). This view occurs in other authors as well: Grant, 1866, p. 95; Windelband, 1888, p. 71 (though see n. 7 below); Süss, 1910, pp. 56–7; Huizinga, 1944, p. 245; Capelle, 1953, p. 24 (though see n. 14 below). A modified version of this position can be found in Praechter (in Ueberweg, 1920), who argues that the 'nihilism' of the first part of *On Not Being* is a 'paradoxical extension and trumping of the scepticism' of the second and third parts, whose conclusions Gorgias is supposed to have endorsed as his own (pp. 134–6). Newiger, 1979, argues that the demonstrated conclusions of the treatise *are* nihilistic, but that the underlying conviction is not, reflecting instead a 'sound' common sense.

[2] The clearest statement of this interpretation can be found in Calogero, 1932, pp. 205–7, 211, 215–17, 219–21; but see also Lattanzi, 1932, pp. 289–90; von Fritz, 1946, p. 32; Dupréel, 1948, pp. 64, 68, 74; Guthrie, 1962–81, pp. 272–3; Newiger, 1973, pp. 157–8 (cf. 138–40); Newiger, 1979, p. 58; Mansfeld, 1985, pp. 104–6; Pepe (1985), esp. pp. 503–4; Zeppi (1985), *passim*; Mourelatos, 1987, p. 164 n. 2; Mansfeld, 1988, pp. 224, 226. Cassin approaches this view, insofar as she takes the treatise to argue for an 'indifference' between all propositions: none is any less 'true,' and so not intrinsically preferable, than any other, beyond being of what appears to be the case at a given moment (1980, pp. 69, 91–4, 526–7).

Zeller should perhaps also be grouped here, even though he describes Gorgias as a 'sceptic,' since on Zeller's view 'scepticism' involves the denial of any objective truth, a position he claims Gorgias shares with Protagoras (see esp. 1919–23, vol. 1.2, p. 1368) – a view that goes back to Grote, who takes Gorgias to reject only the 'ultra-phænomenal existence' of things (1849–56, pp. 503–4), and to Grant (1866, pp.

the text implies that it could serve, at best, only as an indirect argument for relativism, with Gorgias playing Zeno, as it were, to Protagoras' Parmenides. But it would have to be very indirect, as a simple *reductio ad absurdum* is out of the question: there is a considerable gap between a relativist position and the mere negation of Gorgias' premises.[3] For the same reason, *On Not Being* could not establish any of the other positive positions that have been ascribed to it, whether it be radical empiricism,[4] 'tragic' existentialism,[5] or some form of antirealism.[6] It might be tempting, then, not to take the treatise seriously at all, but rather as a kind of elaborate joke or spoof[7] – tempting, at any rate, until about the fourth or fifth

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97–8), who adopts a more moderate, 'Kantian' form of this position. This emphasis on an exclusively 'phenomenal' focus easily lends itself to subjectivist and idealist interpretations: see n. 31 below.

One difficulty with this line of interpretation is that it generally operates with an imprecise, and sometimes confused, conception of relativism. (For a salutory corrective to this tendency, see the excellent and thorough examination in Bett, 1989.) But the greater stumbling block by far is that Protagoras *rejects* the possibility of error, which puts him into *direct conflict* with Gorgias – something already noticed by Levi, 1941, pp. 184–5 (= Levi, 1966, p. 232), and exploited by Di Benedetto, 1955. See below pp. 216–17.

[3] Just such an indirect argument is attempted by Mansfeld – see n. 41 below.

[4] Newiger, for example, compares Gorgias' position in Part III with Locke's affirmation that '*nihil est in intellectu quod non fuerit in sensu*' (1973, pp. 175–6, 180; 1979, pp. 58–9); even in Part II, where the possibility of knowledge is denied, Gorgias is supposed to have given sense experience paramount importance, resting his entire argument on the authority of its claims (1973, pp. 137–40; 1979, pp. 56–8). Similarly, Loenen, 1959, pp. 193, 195, 201, 203. Montano, 1985, argues that Gorgias' treatise is aimed at showing the bankruptcy of reason divorced from immediate sense experience, which is supposed to provide the ultimate standard.

[5] Untersteiner, 1967, vol. 1, pp. 151–318.

[6] This seems to be the thrust of Graeser, 1983, p. 41. Rosenmeyer may be thinking along similar lines, when he claims that for Gorgias speech 'does not distort reality, for it has *no measurable relationship* to it' (1955, pp. 231–2; emphasis mine).

[7] The most influential statement of this position can be found in H. Gomperz, 1912: 'there is only one thing one must not do … one must not take the subject matter of these παίγνια "seriously"' (p. 28), and again, 'Gorgias' "philosophical nihilism" should be struck from the history of philosophy. His humorous speech on nature has its place in the history of rhetoric' (p. 35; Segal, 1962, p. 100, mistakenly characterizes this quotation as *endorsing* the view that Gorgias was a philosophical nihilist). But essentially the same position occurs earlier as well: Windelband considers *On Not Being* a 'grotesque farce' not to be taken seriously at all (1892, p. 69; cf. 1888, pp. 71–2); the Oxford pragmatist, F. C. S. Schiller, thinks it 'highly probable' that the essay was 'not a prosaic account of his own deepest convictions, but intended *merely* as an annihilating skit upon Eleatic metaphysics' (1908, p. 520; emphasis mine).

After Gomperz, this thesis is found quite widely. Maier, for example, holds that it is '*nothing more and nothing less* than a parody on eleatic dialectic (1913, p. 223; emphasis mine), a view stated even more strongly in Reinhardt's often quoted remark: 'Even the theory of cognition that is taken up and strongly caricatured, however important its content may be to us still today, should not obscure the fact that *the whole thing* is a farce. The Eleatics had outlived themselves, and in vibrant Sicily one ridiculed them' (1959, p. 39; emphasis mine). Praechter argues (in Ueberweg, 1920) that talk of earnestness has as little place as talk of jokes; like all Greek philosophical discussion, it has its origin 'in a people that delight in disputes' and in the competitive nature of eristic debate (p. 136). Although Robinson denies that it is a joke or merely a rhetorical exercise, he still derogates it as a 'very clever pastiche of "Eleatic logic"' (1973, p. 59). Huizinga similarly claims (1944, p. 245; cf. 238) *On Not Being* should be declared 'ein Spiel' just as much as the *Helen*. The view continues to find advocates today: Martin Ostwald, for example, has suggested to me (in conversation) that taking Gorgias seriously would be comparable to taking Danny Kaye seriously.

For criticisms of the details of Gomperz' interpretation, see Nestle, 1922 and his additions to Zeller, 1919–23, vol. 1.2, pp. 1367–8 n. 2.

argument, when the fun starts to wear off and one begins to worry about the Greeks' sense of humor.[8]

To be sure, *On Not Being* is nothing if not ironic: Gorgias plainly uses Eleatic method to unravel Eleatic conclusions. But it hardly follows that it is *merely* a send-up of Eleatic philosophy, any more than the *Encomium of Helen* is merely 'amusement' (*παίγνιον*) or merely a display of rhetorical prowess.[9] The *Encomium* is no doubt all of that. But it is *also* a serious challenge to certain notions of agency and responsibility. It takes no great effort to see *that* his defense of Helen fails. The lasting and more important challenge is to find out *why* it fails. His arguments typically rest on assumptions that we ourselves share; and so to avoid his *reductio*, we may be forced to revise our beliefs considerably.

On Not Being poses a similar challenge for assumptions about the connections between being, mind, and language. Its evident irony only makes it more of an affront: it is something each of us *should* be able to answer and so something we cannot afford to brush off lightly.[10] But then Gorgias need not be advocating a positive position in offering these arguments.[11] Like later sceptics, he may be trying to do other things with arguments than just play them straight *in propria persona*. His arguments may be designed instead to engage certain views, by showing how they lead to absurdity and thus undermining their presuppositions.[12] Such an approach is not limited to the aims typically ascribed to Gorgias, moreover. He needn't have been attempting, for example, to undermine belief globally, by staging a kind of pyrrhonism *avant la lettre*,[13] or to set up a cynical *Gegenphilosophie*, revealing philosophical method to be a dead end;[14] or indeed even

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[8] As both Bröcker (1958, p. 427) and Kerferd (1955/56, p. 3) aptly observe, *On Not Being* is not any more humorous than Plato's *Parmenides* (cf. *πραγματειώδη παιδιὰν παίζειν*, 137b).

[9] There is no evidence I know of to show that Gorgias' aim was *exclusively* satiric or epideictic, despite Gomperz' claim to the contrary. Gomperz claims that at the end of the *Encomium* 'the author expressly states that the whole text is *nothing but* an amusement' (*nichts als ein Spiel*, 1912, p. 25; emphasis mine), an interpretation he traces back to Isocrates (*Hel.* 3 f.), and which can be found in most of the authors cited above in n. 7. In fact, Gorgias lists several aims at the end of the *Encomium*: to rid us of unjust blame and ignorant opinion, by writing an encomium of Helen and an amusement for himself (the last two clauses linked by *μέν* and *δέ*). Similar comments would hold as well for Bux' claim that *On Not Being* is *nothing more* than a school exercise, 'an exemplary solution of an ordinary Eleatic practice topic' (1941, p. 403).

One of the few authors to recognize that parody does not preclude a more serious aim is Calogero, 1932, who characterizes Gorgias' aim as *both* ironic *and* polemical throughout; cf. also Dupréel, 1948, p. 72 and Guthrie, 1962–81, pp. 194–5. Grieder, who describes *On Not Being* as a 'rhetorical showpiece,' also doubts that it was meant *only* as a joke or a farce (1962, p. 44). Yet he still seems to think its point is the 'destruction of the philosophical tradition' and philosophical discourse more generally (p. 49); see n. 14 below. Others have raised doubts as to whether *παίγνιον* here can signify a 'joke': see Gigon, 1936, pp. 190f.; Sicking, 1964, p. 225; Newiger, 1973, p. 185, n. 20.

[10] To cite Gorgias himself: 'One should demolish the seriousness of one's opponents with laughter and their laughter with seriousness' (B 12).

[11] *Contra* Robinson, 1973, p. 54. As Bröcker rightly notes (1965, p. 115): 'surely Gorgias does not wish to convince the reader, whom he takes to be nonexistent, of his nonexistence. The treatise is polemical.'

[12] The *ad hominem* character of the premises is sometimes overlooked: Gomperz, 1912, pp. 23–4 n. 29; Nestle, 1922, p. 557 n. 2.

[13] Mansfeld, 1988, for example, emphasizes that the author of the *MXG* – himself a later Pyrrhonist, according to Mansfeld (p. 227) – does not critique most of Gorgias' arguments, as he does other arguments in the treatise, because, Mansfeld suggests, Gorgias' arguments already lend themselves quite naturally to Pyrrhonist ends (pp. 223–6).

[14] The phrase is Sicking's (1964, p. 405), who argues that *On Not Being* is meant to demonstrate the bankruptcy of philosophical method in general, by showing that it can lead to *any* result, no matter how absurd; consequently, none of the arguments is to be taken seriously at all (pp. 402–5). Such a view was put

to conduct a polemic against a specific thinker's views.[15] His arguments might equally well have been intended constructively, as a way of challenging his readers to come up with a more adequate solution to the problems in question. For the moment, it doesn't much matter. The key point is that there isn't any difficulty in appreciating Gorgias' arguments, once we see them *dialectically* – once, that is, we stop thinking that the only way to be serious is to be dogmatic.

This, to my mind, has been the greatest advance in the study of Gorgias over the last century and the only one that has any hope of allowing him a substantive contribution to the history of philosophy. A. P. D. Mourelatos offers us a paradigm of this approach in his article 'Gorgias on the function of language' (1987), a case study of Part III of *On Not Being*, whose clarity and sound philosophical judgment stand out in a very dark area of scholarship.[16] (At times the secondary literature can be harder to understand than Gorgias himself.) My aim is to continue Mourelatos' project, by attempting a dialectical interpretation of Part II of *On Not Being*, concerning the relation between the mind and reality. Part I, the most difficult and recalcitrant section, will have to await someone better equipped to handle its subtleties.

The Main Conclusion of Part II

Gorgias' arguments are reported in two quite different forms by Sextus Empiricus and the author of the pseudo-Aristotelian treatise, *On Melissus, Xenophanes, and Gorgias* (henceforth, *MXG*). The differences between the two versions of Part II are significant. Sextus includes at least one argument not found in the *MXG*. But even those which have a parallel differ in important respects, not merely as regards the nature of the inferences, but the conclusions as well. It is imperative, therefore, not to run the two versions together, but to evaluate the possibilities each text offers on its own.

Both agree on the main conclusion of Part II. There are only slight differences in wording and in the location:[17]

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forward even earlier by Windelband, 1892, p. 69 and Levi, 1941, p. 185 (= Levi, 1966, pp. 232–3); variants of the view can also be found in Grieder, 1962, p. 49 and Segal, 1962, p. 99; and it is later endorsed by Lesky, 1971, p. 506. Others see it as an opposition not so much to philosophy in general, but to philosophy which is abstract and rationalistic, in particular metaphysics: for example, Migliori, 1973, pp. 88, 90 (cf. p. 18); Montoneri, 1985. Nestle offers a different compromise: though he views the work as a rejection of philosophy (1922, pp. 559–60; cf. 1942, p. 310), he thinks some of the arguments, especially in Part III, must be taken seriously (1922, p. 554). A similar position can be found in Capelle, 1935, pp. 343–4, although he later accuses Gorgias of 'nihilism' (1953, p. 24). The most radical version of this approach can be found in Cassin, 1980, who argues that the work demonstrates how ontology collapses in on itself, leaving nothing but the 'autonomy of pure discourse,' a practice independent of all pretensions to truth and other grounds for preferring one statement to another: see esp. pp. 57–70, 98–103, 531–2, 535, 539.

[15] Calogero, 1932, is the clearest example of this sort of approach. But the view that Gorgias' treatise is a polemic against the Eleatics, and primarily Parmenides, is exceedingly widespread.

[16] Mourelatos is not the first to attempt such an approach. But no one else has worked as closely with the dialectical nuances and subtleties of the arguments – the only kind of work that could possibly justify such an interpretation. For gestures in this direction, see esp. Calogero, 1932, pp. 159 ff.; also Kerferd, 1955/56; Bröcker, 1958; Migliori, 1973, p. 80; and still more recently, Striker, 1996, pp. 11–14 and Wardy, 1996, ch. 1. I find myself especially sympathetic with Striker's approach, even though we are not in agreement on several key points.

[17] It occurs at the end of Part II in *MXG*, and at both the beginning and the end in Sextus. To bring the two texts into line, Apelt inserts the following phrase at the beginning in the *MXG* version: ‹εἰ δ' ἔστιν, ὅτι ἄγνωστόν ἐστι, μετὰ ταῦτα τὰς ἀποδείξεις› λέγει. But there is little reason to think that this feature represents the original more faithfully, since Sextus in general repeats theses at both the beginning and end of each section in a complex argument, in order to articulate its structure.

MXG 980a18–19:	*M.* 7.77:
ὥστε καὶ εἰ ἔστιν, ἡμῖν γε ἄγνωστα εἶναι τὰ πράγματα.	Ὅτι δὲ κἂν ᾖ τι, τοῦτο ἄγνωστόν τε καὶ ἀνεπινόητόν ἐστιν ἀνθρώπῳ, παρακειμένως ὑποδεικτέον.
Consequently, things cannot be known by us, even if there is [something].	It is to be shown next that even if there should be something, it cannot be known or conceived by a human.

The concessive form of the conclusion – 'even if there is …' – belongs to the larger rhetorical strategy of *On Not Being*. At each successive stage of the treatise, Gorgias seems to abandon stronger for weaker claims, in a way that suggests the courtroom tactics of lawyers, willing to use any and every argument to get their client off the hook.[18] ('My client did not strike the plaintiff, Ladies and Gentlemen of the jury; and even if he did, the plaintiff hit him first; and even if my client did hit first, the plaintiff had it coming.')[19] But in contrast with his *Defense of Palamedes*, which is staged as a courtroom speech that appeals openly to the standard of what is 'probable' or 'reasonable' (εἰκός), *On Not Being* clearly has higher, apodeictic aims, of the kind associated with Eleatic practice. The treatise's most characteristic feature is its almost obsessive use of argument by elimination, beginning with an exhaustive enumeration of the logical alternatives. In this context, 'even if' takes on a different logical force. It indicates a form of 'constructive dilemma': either (a) there isn't anything or (b) there is something; if (a) there isn't anything, then (c) nothing is knowable; and even if (b) there is something, (c) nothing is knowable; therefore, in either case, (c) nothing is knowable. The consequent, that is, can be detached from the conditional in which it is embedded to stand categorically on its own. Part II is thus intended to have a quite general significance: *nothing can be known*.[20] We are assured of the truth of the initial disjunction, since the alternatives are contradictory and therefore exhaustive. The first arm of the dilemma is likewise trivial: if there isn't anything at all, there isn't anything to be known either. Part II takes up the nontrivial arm. Despite superficial resemblances to lawyerly tactics, then, Gorgias' argument is all of one piece and defensible on logical grounds.[21]

In fact, I would argue that Gorgias' argument is much more rigorous than it has generally been taken to be, and that most of the confusions ascribed to him are the result of commentators' lack of precision. The only remedy is a closer logical analysis of his various theses and arguments. For ease of reference, I have adopted a simple system of acronyms, to make perspicuous what is at stake in each proposition. Claims to the effect that *something is* will be symbolized by '**B**' (for 'being'); that *something is known* will be symbolized by '**K**' (for

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[18] So Apelt, 1888, p. 205; Gigon, 1936, p. 191; Bux, 1941, p. 398; Di Benedetto, 1955, p. 287; Sicking, 1964, p. 407; Brunschwig, 1971, p. 79.

[19] Cassin, 1995, p. 27, recounts Freud's version of a similar joke.

[20] Cassin argues that the conditional conclusions of Part II and Part III are vacuously true, because their antecedents are false, and so could just as well have had the contradictory consequents; and then, turning to a modal analysis, she claims that the conclusions of the three parts represent incompatible possibilities (1980, pp. 430–1). But this mangles the logic of the argument. On the reading I have offered, the three parts are not only *compatible* with one another (since the conclusions of Parts II and III are conditionals and so do not imply their antecedents); when taken together, they also *entail* the consequents of the conclusions of Parts II and III: namely, that nothing can be known and that no one can be informed.

[21] Against Gigon, 1936, p. 191, who describes the assumption of Part II that things exist as a 'philosophically senseless' inconsistency, though familiar from juridical practice. Newiger rightly contests this (1973, pp. 11–13; cf. 109), citing Melissus B 8 and the structure of Zeno's arguments; but he obfuscates, by pleading that the boundaries between philosophy and rhetoric were not sharp at this time, overlooking the logical justification for Gorgias' procedure. A more positive assessment of this method can be found in Brunschwig, 1971, p. 83 (cf. pp. 80–1) and Long, 1982, pp. 235–6.

'knowledge'); that *something is thought about* or *had in mind* will be symbolized by '**M**' (for 'mind'). The negation of each of these propositions will be labeled by the relevant letter, enclosed in square brackets, for example, '**[B]**', for the claim that *there isn't anything*. Finally, conditionals will be labeled by two letter acronyms, designating the antecedent and consequent, respectively: thus, '**BK**' will stand for the conditional *if there is something, then it is known*. In general, we will be concerned with modal versions of these claims; but for simplicity's sake, I will leave these qualifications out of the acronyms.

Before looking at the inferences themselves, we should consider more closely the main conclusion of Part II. On the most plausible reading, it maintains that *necessarily, if there is anything, then it is not known*.[22] That is, every instance of the following schema will be true:

B[K] Necessarily, if *x* is, then *x* is *not* known

where '*x*' has for the moment been left ambiguous between objects and states-of-affairs, and 'is' has been left ambiguous between existential, predicative, and veridical uses of the verb 'to be.' But there is another, and even more critical, ambiguity here, involving the verb 'to know' (*γιγνώσκειν*). If the sense of 'know' is weak, indicating simply that we have made some sort of 'cognitive contact' with an object and apprehend it in some way or other – the sense it seems to have in Parmenides B 2.7 (see below, p. 216) – then Gorgias' denial is correspondingly strong. He is making a claim about intentionality, denying that our mental states can ever be about anything. Alternatively, 'know' might signal a higher epistemic achievement. It is in some such sense, presumably, that Ecphantus claimed 'it isn't possible to acquire true knowledge of what is' (*μὴ εἶναι ἀληθινὴν τῶν ὄντων λαβεῖν γνῶσιν*), but *only opinion* (DK 51, no. 1, = vol. 1, p. 442, ll. 8–9), a contrast also drawn explicitly in Xenophanes B 34.3–4. The nature of this higher achievement might be different for different thinkers: perhaps we only come to know when we think of things as they are 'together with an account'; or when they are presented 'in a secure way'; or on the basis of an 'unshakable' foundation. What is important is just that when the verb 'know' is used in this manner, it only signifies a *specific* way of grasping something, and not our ability to grasp items in general. On this reading, then, the conclusion of Part II – that nothing can be 'known by us' – would be compatible with our having *other* mental states about what there is, perhaps even true beliefs. To distinguish these two broad ways of construing 'know,' I will speak of the *intentional* reading and the *epistemic* reading, respectively.

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[22] This reading may not be obvious at first glance. But reflection on the logical form of Gorgias' claim militates in favor of it. (1) When the antecedent of a conditional contains an indefinite pronoun that also serves as the (implicit) subject of the consequent, it expresses a universal generalization over the entire conditional. This is confirmed, moreover, by the use of *ἄν* with the subjunctive in Sextus and the plurals *ἄγνωστα* and *πράγματα* in the *MXG* version. To keep matters simple, I have used a schema rather than adding universal quantifiers explicitly. (2) The modal sense of the claim that whatever there is is 'unknowable' is best understood in terms of the necessity of the *consequence*, rather than the necessity of the consequent, that is,

(A) Necessarily (if *p*, then *q*)

rather than

(B) If *p*, then necessarily (*q*).

Applied to the case at hand, I am arguing that the conclusion should be understood as claiming (A) that it is impossible for something *both* to be *and* be known, rather than (B) that the only things there are are the sort of things it is impossible to know.

It is clear from Sextus' version of the conclusion that Sextus understood Gorgias along the lines of the intentional reading: he adds 'inconceivable' (*ἀνεπινόητον*) to 'unknowable' (*ἄγνωστον*), suggesting quite generally that we cannot have anything in mind whatsoever. The first half of Part II in both versions also supports this reading, as the arguments plainly concern intentionality, turning on the possibility of falsehood and (in Sextus' version) thoughts of nonexistent objects.[23] But the epistemic reading cannot be completely ruled out. The second half of Part II concerns conflicts between different types of mental states and the evidence that each provides against the claims of the rest; and while the arguments here are harder to make out, they clearly involve more properly epistemic concerns. There is also the possibility, of course, that Gorgias exploits both senses. So it is better to keep both in play.

It may also be worth mentioning an important point of agreement. Both versions of the conclusion restrict what is unknowable: either it is unknowable 'by us' (*ἡμῖν*) or 'by a human' (*ἀνθρώπῳ*). The gap this leaves open might be unimportant to the argument: it might simply be a way of indicating that nothing short of supernatural powers or magic could possible bring us into contact with objects (on the intentional reading) or into the right sort of contact (on the epistemic reading). But it might also be an allusion to Parmenides. If the goddess is right about how things stand in truth, then there may be no room for human knowledge, a theme that would not by any means be peculiar to Gorgias (cf. Xenophanes B 34).

The Intentional Argument: The *MXG* Version

We may now proceed to the intentional arguments as they occur in each version. In the *MXG*, there is only a single intentional argument and it is brief and elliptical.[24] But unlike Sextus' version, its philosophical force and intent are clear:[25]

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[23] Against Graeser, who claims that 'Gorgias was not concerned with the phenomenon of intentionality thematized by medieval philosophers and consequently also cannot assert a distinction between factual existence on the one hand and merely imagined existence on the other' (1983, p. 36). Worrying about how it is possible to have a false belief or think of a nonexistent object is surely sufficient for being concerned with 'the phenomenon of intentionality,' as I am using the term; having a concept of 'merely imagined existence' is not.

[24] I omit the opening line of Part II (980a9–10), which has been a source of endless conjectures, even though it is almost universally agreed to be a fairly anodyne transition between Part I and Part II of *On Not Being*, and so not of great consequence to our study. (A less anodyne transition, found in a number of Italian studies that follow Untersteiner's edition, 1961, depends entirely on an adventurous emendation by Gercke, who reads *τὰς ἀποδείξεις λέγει ἀπατᾶν* instead of the mss. *τὰς ἀποδείξεις λέγειν ἅπαντα*: see Untersteiner, 1967, vol. 1 p. 239 n. 64 and, for example, Migliori, 1973, pp. 63–5; Montoneri, 1985, p. 290.)

A significant exception to the rule is Cassin, who takes this sentence to be decisive for the interpretation of the treatise as a whole, while insisting on a strict adherence to the mss' reading of this sentence: 'if there isn't anything, then the proofs say everything without exception.' She takes this to indicate the 'autonomy' of discourse, which is supposed to be independent of any corresponding reality – indeed, reality is instead the 'product' of discourse (see esp. 1980, pp. 62–5, 530–9 and 1995, pp. 47–8; her interpretation is also accepted by Montano, 1985, p. 122 n. 28 and p. 126). Such a position seems so manifestly incoherent that it is difficult to take it as little more than word-play (although perhaps the author would welcome this characterization as an exemplification of her thesis and so as appropriate). In any case, there is little in the actual wording to justify such extreme conclusions – blood is being extracted here from a turnip. (On this point, see the trenchant remarks in Barnes, 1983.)

[25] If, that is, we stay with the manuscripts: at the very beginning of our citation, Cook Wilson (1892–93, p. 34) inserts the protasis *⟨εἰ τὸ ὂν φρονεῖται⟩* ('if what is is had in mind'), which he thinks necessary to complete the argument. Newiger (1973, p. 125) similarly thinks such a protasis must be understood even if we don't insert it into the text; cf. also Grieder, 1962, p. 44. In point of fact, the argument of the *MXG* version seems intelligible as it stands: such an addition is 'necessary' only if we have already

δεῖ γὰρ τὰ φρονούμενα εἶναι
καὶ τὸ μὴ ὄν, εἴπερ μὴ ἐστι, μηδὲ φρονεῖσθαι. εἰ δ' οὕτως,
οὐδὲν ἂν εἴποι ψεῦδος οὐδείς, φησίν, οὐδ' εἰ ἐν τῷ πελάγει
φαίη ἁμιλλᾶσθαι ἅρματα. πάντα γὰρ ἂν ταῦτα εἴη.

9 δεῖ R δεῖν L || εἰ τὸ ὂν φρονεῖται post εἶναι add. Cook Wilson || 11 ἂν εἴποι Apelt: ἂν εἴποι εἶ Mansfeld: ἂν εἶναι codd. || 12 οὐδείς] οὐδ' εἰ Cook Wilson || ουδ' εἰ] om. Cook Wilson: ουδ' εἴ τις Mansfeld || 13 ταῦτα R: ταῦτὰ L: ταὐτὰ Diels: ταύτ'Apelt

For it must be the case that the things had in mind are and what is not, if it really is not, is not had in mind either. But if so, no one could say anything false, he claims, not even if one were to claim that a chariot-team is striving on the sea. For all these things would be.[26] (*MXG* 980a9–12)

The shift to the verb φρονεῖσθαι, which I have translated here as 'have in mind,' plainly suggests the intentional reading.[27] The active form φρονεῖν is used by Presocratic authors for mental states of all sorts: Empedocles, for example, uses it for dreams and delusions (DK 31 B 108).[28] It signifies simply that one *has something in mind*, a sense that can later be narrowed to being *mindful* of something and paying it *due attention*, and so ultimately responding *intelligently* and *prudently*. That the broad use is at issue here is confirmed by the emphasis on falsehood. If in general it is impossible to state a falsehood, then it is impossible for the content of any mental state to be false too – since, if the content of some state were false, it could be articulated in a sentence that would be false as well, against the hypothesis. There are therefore no grounds for restricting this argument to a specific type of mental state, as an epistemological reading would require.[29]

The use of φρονεῖσθαι, it is important to note, is neutral as regards the status of the 'things had in mind' (τὰ φρονούμενα). It does *not* signify that such things are '*in* the mind' in the sense that they are subjective mental entities that 'exist' *only insofar* as they are thought. It simply expresses that something happens to *be thought about*; hence, it can be applied to real, mind-independent objects in our environment about which we are thinking. To have something in mind, therefore, is compatible with an ability to think of things *beyond* the mind, which exist outside and independently of the mind. In fact, on my view Gorgias *never* rejects such transcendence.[30] The common impression that he does is due to Sextus' misconstrual and the

assumed that the argument is the same as in Sextus' version. But that assumption is precisely what I am calling into question.

[26] On reading the mss.' ταῦτα (against Apelt, Cook Wilson and Gigon), see Newiger, p. 129. Reading ταύτῃ or taking ταῦτα as equivalent to διὰ ταῦτα (as Newiger suggests) introduces a subjective idealist interpretation that is not in evidence anywhere in the *MXG*, by suggesting that a chariot-team strives on the sea *insofar as* or *because* it is thought. Such a claim, being quite controversial, would weaken the effectiveness of Gorgias' counterexample and thus run counter to his strategy of *reductio ad absurdum*, which is to derive as straightforward a falsehood as possible.

[27] Cook Wilson (1892–93, p. 34) also renders φρονεῖσθαι as 'be in mind,' but takes this in a subjectivist manner, glossing φρονούμενα as '*objects in* consciousness' (my emphasis) and 'appearance[s] to consciousness' (see n. 31 below). Cook Wilson also thinks Sextus mistakenly restricts the meaning of this verb to imagination (p. 36). But nothing in his version implies such a restriction.

[28] The application to dreams is clear from the original context of this fragment: Ps.-Philoponus *In De an.* 486.13–16, cf. 486.34–487.3, and Ps.-Simplicius *In De an.* 202.30–34. Ps.-Philoponus explicitly draws attention to the fact that φρονεῖν here does not bear the technical sense it has, for example, in Aristotle.

[29] With Newiger (1973, p. 130) and against Apelt (1888, p. 217), who accuses Gorgias of trading fallaciously on the ambiguity in φρονεῖν.

[30] This is even true of Gorgias' use of ἐννοεῖν in Part III: what we see and hear is something external, even if the *way* in which it appears should turn out to be peculiar to each of us. This reading goes against

widespread tendency to read this back in to the *MXG* (see below, p. 219). But such a rejection is not to be found anywhere in the *MXG* itself.[31]

The argument Gorgias offers in the *MXG* version is plainly intended as a *reductio ad absurdum*. It begins from an exceptionally strong thesis of intentionality and derives a manifestly unacceptable consequence from it. It doesn't stop there, however, but moves immediately to the next argument, without drawing Part II's main conclusion.[32] This may just be a failure to dot one's i's and cross one's t's, like a late Scholastic's impatient '*ergo, et cetera*' at the end of an obvious proof. But the omission also leaves room for an alternative we will have to consider later, namely, that the intentional argument is *not* meant to establish the main conclusion of Part II by itself, but functions instead as part of a larger strategy that incorporates an epistemological argument as well.

The intentional argument itself seems so obvious and commonplace that we tend not to pay sufficient attention to its details. The thesis of intentionality it starts from is stated both positively (980a9), in terms of the following schema (for any permissible substituend of '*x*'):

MB Necessarily, if *x* is had in mind by someone, then *x* is

and negatively (980a10), in its more familiar contrapositive version:

[B][M] Necessarily, if *x* is *not*, then *x* is *not* had in mind by anyone.

Newiger, who claims that Gorgias and Protagoras both reject '*Transzendenz*' (1973, p. 140; 1979, p. 56); cf. Fritz, 1946, p. 32; Loenen, 1959, p. 194 (though cf. p. 195 n. 38). Graeser may also attribute this rejection to Gorgias, but he hedges (1983, pp. 40–1).

[31] Cook Wilson argues that the argument in *MXG* is based on a 'principle of subjective idealism,' according to which 'even those objects of consciousness which are supposed to be real exist *only in consciousness* (like what are called imaginary) and *not otherwise*' (1892–93, p. 36, emphasis mine; cf. 34) – a view that goes back at least to Hegel (1833, p. 41); cf. Grant, 1866, p. 97. But there is nothing in either version of the argument that corresponds to Cook Wilson's 'only,' not to mention the notion of existing 'in' consciousness. The sentence he repeatedly cites – 'for things seen and things heard both are, due to the fact that each of them is had in mind' (*καὶ γὰρ τὰ ὁρώμενα καὶ ἀκουόμενα διὰ τοῦτό ἐστιν, ὅτι φρονεῖται ἕκαστα αὐτῶν*, 980a12–14) – is quite neutral. It requires nothing more than the simple covariation between being and mind expressed just a few lines earlier: 'it must be the case that things had in mind are' (*δεῖ γὰρ τὰ φρονούμενα εἶναι*, 980a9). This, together with the assumption made explicit in the *γάρ* clause here – that 'each of the [things seen and heard] *is had in mind*' – is sufficient to entail the conclusion that things seen and heard are. And that is incompatible with Cook Wilson's 'subjective idealism': things had in mind do *not* exist *only* in consciousness, as he claims. On the contrary, whatever is had in mind *is*.

Kerferd (1955/56, pp. 5, 13, 24; 1981, pp. 96–7) appears to be thinking along similar lines to Cook Wilson, when he claims that Gorgias is concerned *only* with 'objects of perception' or 'phenomena'; cf. also Newiger, 1973, pp. 21–2, 32; Pepe (1985), pp. 503–4. But there is no indication in Gorgias' text of any such restriction, especially not in the use of the word *πράγματα* (*MXG* 979a27–8) which simply refers indifferently to 'things.' For further arguments against this view, see Mansfeld, 1985, pp. 102–3.

[32] *Pace* Cassin, who does not take the argument to be a *reductio* at all: on the contrary, she alleges that Gorgias *accepts* the conclusion that there is no falsehood and infers *on that basis* that nothing can be known, on the grounds that thoughts will be 'indiscernible' with regard to truth and falsehood (1995, p. 47). But it is difficult to see how the absence of falsehood would preclude the possibility of knowledge – if anything, it *removes* an obstacle to knowledge, as a Protagorean might well insist (cf. Plato *Tht.* 152c5–6: *τοῦ ὄντος ἀεί ἐστιν καὶ ἀψευδὲς ὡς ἐπιστήμη οὖσα*). Nor does the *MXG* version appeal to such indiscernibility as the basis for the conclusion of Part II. It invokes indifference only later, in a subsequent argument, which depends on the opposite assumption (*εἰ δὲ μὴ διὰ τοῦτο*, 980a14). See below, pp. 226–8.

It is important to distinguish the latter from another thesis, with which it is sometimes confused, namely, the *converse* of (**MB**),

BM Necessarily, if *x* is, then *x* is had in mind by someone.

This is a *very* strong thesis – *only* those things that are thought about are – and together with (**MB**), it would imply that *esse est concipi*, or at any rate that they are extensionally equivalent.[33] But the converse of (**MB**) is never stated in *MXG*, only the contrapositive, (**[B][M]**); and of course the converse, (**BM**), is neither equivalent to (**MB**), nor implied by it.[34] Gorgias, that is, only states the relation *in one direction*, from mind to being; in fact, he doesn't assert anything more than a certain *covariation* between the two. In particular, he doesn't claim that things are *insofar as* or *because* – or even more strongly, *only* insofar as or because – they are had in mind. His argument does not require anything so strong. For (**MB**), as weak as it might seem, is sufficient to preclude falsehood. Once the verb 'to be' is construed veridically,

MB′ Necessarily, if someone has it in mind that *p*, then *p* is the case

and '*p*' is substituted by any proposition, then any thought, however bizarre, will correspond to the way things are and so be true.[35] To show the absurdity of (**MB′**), any arbitrary example of falsehood will do: something that is thought, but is not in fact the case.[36] Far from placing all thoughts on a par with regards to truth and falsehood,[37] Gorgias' refutation depends upon their clear difference.[38]

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[33] Newiger attributes this form of idealism to Gorgias, which he identifies (1973, pp. 133–4) with the 'subjective idealism' Cook Wilson attributes to Gorgias (see n. 00 above). But the two are quite different. (1) According to Cook Wilson's brand of 'subjective idealism,' *nothing* we have in mind is –

M[B] Necessarily, if *x* is had in mind, then *x* is *not*

But according to the form of idealism we have been considering, being and mind are coextensive; in particular, everything had in mind *is* – (**MB**). But on the assumption that some things *are* had in mind, (**MB**) and Cook Wilson's (**M[B]**) are incompatible. (2) Although both forms of idealism reject 'transcendence,' they do so for very different reasons. The form of idealism now under consideration holds that we can't think of anything beyond the mind, because there *isn't anything* beyond the mind: whatever is, is necessarily had in mind – (**BM**). Cook Wilson's (**M[B]**), in contrast, is compatible with there being things beyond the mind; it's just that we would never think of them. Transcendence, then, must fail for some other reason, having to do with the mind's own limitations.

[34] Against Cassin (1980, pp. 66–7, 518, 521, 526, 533, 537), who consistently takes Gorgias to be committed to (**BM**) as well as (**MB**); cf. Newiger, 1973, pp. 133–4.

[35] With Mansfeld (1985, p. 103) and against Kerferd, who argues that the treatise is, in general, concerned with the *predicative* use of the verb 'to be' (1981, pp. 95–6) and that Part II takes thoughts to have *the same characteristics* as the objects thought about (p. 97). This last claim appears to assume that there are subjective mental entities in addition to objects in the world for Gorgias. Against this, see n. 31 above.

[36] Bröcker (1965, p. 117) thus gets it doubly wrong when he takes Gorgias to concede to Parmenides that 'nothing can be that one cannot think' – a modal version of ([**M**] [**B**]), which corresponds to (**BM**), that is, the *converse* of (**MB**) – and then to observe that it doesn't follow that 'everything is which we can think,' that is, (**MB**). In the *MXG*, Gorgias never concedes, or even considers, (**BM**); and he rejects (**MB**), not because it doesn't follow from some Parmenidean thesis – on the contrary, it arguably *is* the Parmenidean thesis – but because of the counterexample of the chariot-team racing on the sea.

[37] As Nestle claims: indeed, the whole of Part II is supposed to depend on this 'no less audacious assumption' (1942, p. 309). So, too, Cassin: 1995, p. 47; cf. 1985, p. 307 (see n. 24 above).

[38] On this point, Dupréel appears to agree (1948, p. 73), although he wrongly takes the version in *MXG* to be at odds with this.

The example Gorgias picks is spectacular. He does not contest the absence of falsehood merely by relying on 'sound commonsense,'[39] that is, on conventional assumptions about the truth or falsehood of contingent beliefs. Instead, he offers an *adunaton*, a manifestly impossible state of affairs,[40] so that the corresponding thought is not merely false, but *necessarily so*, an ideal choice for a *reductio ad absurdum*:

1 Necessarily, if someone has it in mind that *p*, then *p* is the case.
2 Someone has it in mind that a chariot-team is striving on the sea.
∴ 3 A chariot-team is striving on the sea.

This puts Gorgias' opponent on the defensive. Either he must accept the conclusion and show that (3) is not false after all;[41] or he must reject one of the premises. And within that dialectic, the innocence of (2) is delicious. It is not simply that it is obvious that we can think such things. It is that by stating (2) and having us read and understand it, Gorgias has *made* it true: as a result of his argument we, the reader, now have it in mind that a chariot-team is striving on the sea.

The proponent of (1) actually faces an even more difficult problem. He is not in a position to reject (2) by insisting that it is *false*. For it to be false, it must be intelligible and so something that *can* come to mind; but then by (1), it can be true and so not an *adunaton* after all, against the hypothesis. If Gorgias' opponent is to maintain (1) while rejecting (3), he must instead deny that (2) is coherent or meaningful – a tall order, to say the least.

It is tempting to think of Parmenides here (as scholars typically do in this context). For the goddess in his poem firmly admonishes us that what is not *cannot be thought*:[42]

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[39] Against Newiger, 1973, pp. 137–8 (cf. 142–3, 147), although he acknowledges that this poses not only a difficulty, but a 'contradiction that Gorgias must have noticed.'

[40] Gorgias' *adunata* may have a slight edge to them as well. They tend to derive from myth: here, either Poseidon's chariot (*Il.* 13.17–38; cf. also Erichthonius' horses at 20.226–9), or perhaps the Oceanids' chariot (Aesch. *Prom. vinc.* 128–35, esp. *πτερύγων θοαῖς ἁμίλλαις*, 129), as Untersteiner has suggested (1967, vol. 1, pp. 267–8, n. 71); while in Sextus' version, one also finds Scylla and Chimera (*M.* 7.80), not to mention a flying man (7.79), which is perhaps an allusion to Daedelus (as Guthrie, 1962–81, p. 198 n. 1 suggests). If so, then Gorgias would also be getting his readers to admit that none of them really believes such myths, but instead takes them to be incontestable examples of falsehood.

[41] Mansfeld (1985, pp. 104–5) seems to be the only interpreter to have taken this option seriously. He argues first, against (3), that chariots *can* race on the sea – provided that it is frozen. But this objection affects at most the letter of Gorgias' counterexample, not its spirit, and it is easily repaired. Surely what makes the example so striking is the idea that a chariot might travel on the sea *as it presently is* – that is, in a liquid state – and this, at least, remains an *adunaton* and could easily be incorporated into the wording of the objection. Mansfeld's second argument is more general: he argues that Gorgias is not in a position to assert that there are any necessary truths, since then it would be possible to have incontrovertible knowledge, against the professed conclusion of Part II; and he concludes from this that the most Gorgias is entitled to is a *relativistic* conclusion, namely, that the proposition in question is true only *for oneself*. There are at least two difficulties with such a view. First, the argument, so reconstructed, is invalid: it does not follow from the fact that there are necessary truths that it is possible to know them. The existence of such truths makes *true belief* possible. But we still might not be in a position to attain knowledge – if, for example, we could not distinguish true from false beliefs because of the absence of a criterion of truth (as Gorgias' epistemological argument will go on to suggest). Second, considerations about knowledge are in any event out of place here. The intentional argument, on the reconstruction I have offered, requires nothing more than that our rejection of (3) as an *adunaton* be correct. It does not further require that we *know* it to be correct. Only the latter claim that would contradict the main conclusion of Part II.

[42] Interestingly, the negative version of the thesis – the contrapositive, (**[B][M]**) – predominates in Parmenides' poem. Whether the positive version, (**MB**), even occurs in the poem at all depends on whether the following controversial readings are acceptable:

οὔτε γὰρ ἂν γνοίης τό γε μὴ ἐὸν (οὐ γὰρ ἀνυστόν)
οὔτε φράσαις.

For you cannot grasp what is not – for it cannot be accomplished –
Nor can you describe it. (B 2.7–8)

οὐ γὰρ ἄνευ τοῦ ἐόντος, ἐν ᾧ πεφατισμένον ἐστιν,
εὑρήσεις τὸ νοεῖν.

For without what is, on which its declaration depends,
You will not find thinking. (B 8.35–6)

To keep us from straying from the true path of inquiry, the goddess restrains us by fencing off the rest. But Gorgias' counterexample does not exhibit the normal sort of confusion she says mortals are subject to, of thinking that 'what is and what is not are the same and not the same' (B 6.4–9; B 7). Rather it would lead us down the *first* route of inquiry (B 6.1–3), a 'path from which no tidings ever come' (*παναπευθέα ἀταρπόν*, B 2.6), to use Mourelatos' felicitous translation (1970, pp. 23–4). From the goddess' point of view, though, such an argument is wholly in vain, a complete nonstarter: *one simply cannot have the thoughts in question*.[43] If this is Gorgias' target, the debate will come to an abrupt halt, for he would be striking at bedrock differences. His argument has no leverage over a Parmenidean and so his efforts at persuasion will be entirely ineffective. The most he can do, without begging the question, is just reiterate that they disagree.[44]

The obviousness of this response should make us question whether Parmenides is the sole, or even primary, target of the intentional argument. He is not the only person to maintain (**MB**) or (**[B][M]**), even if, as is likely, he is the first. The same view is stated in the pseudo-Hippocratic treatise *On Expertise* and attributed to Protagoras, Anaxagoras, and Metrodorus of Chios; and a specifically veridical form is attributed to Euthydemus, Cratylus, and Antisthenes, as the denial

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τὸ γὰρ αὐτὸ νοεῖν ἔστιν τε καὶ εἶναι

For what can be thought and can be are the same. (B 3)

χρὴ τὸ λέγειν τε νοεῖν τ' ἐὸν ἔμμεναι· ἔστι γὰρ εἶναι
μηδὲν δ' οὐκ ἔστιν.

What can be said and thought must be what is. For it can be,
Whereas nothing cannot. (B 6.1–2)

ταὐτὸν δ' ἐστὶ νοεῖν τε καὶ οὕνεκεν ἔστι νόημα.

That which can be thought and on account of which a thought is are the same. (B 8.34)

Though logically equivalent, the two formulations differ pragmatically. The contrapositive (**[B][M]**) will, if true, be *vacuously* true – since there won't *be* anything of which it can be truly said that it is not, the antecedent will always be false and therefore the conditional trivially true.

[43] And if this seems counterintuitive, she will deny that observation too: for if there aren't any such thoughts, we cannot even *think* we have them either! (And hence not think that we think that we have them; and so on *ad infinitum*.)

[44] Newiger (1973, p. 134) briefly considers an alternative, namely, where the 'Eleatic thesis,' (**MB**), is 'radicalized by the Sophists' so as to apply to sensible things. Yet he continues to take the Eleatics as Gorgias' primary target, without taking account of how seriously this weakens Gorgias' position. A similar objection faces Grieder, 1962, p. 46.

of falsehood.[45] For our purposes, Gorgias' sophistic contemporaries are the most important.[46] Consider Protagoras' version of (**[B][M]**):

> *οὔτε γὰρ τὰ μὴ ὄντα δυνατὸν δοξάσαι οὔτε ἄλλα παρ' ἃ ἂν πάσχῃ, ταῦτα δὲ ἀεὶ ἀληθῆ.*
>
> For it is not possible to believe things that are not, nor anything other than what one experiences; and these are always true. (Plato *Tht.* 167a7–8)

This statement comes from Protagoras' so-called 'defense,' which Socrates puts in his mouth. But it accords fully with Protagoras' *homomensura*. To claim that

> *Πάντων χρημάτων μέτρον ἐστὶν ἄνθρωπος, τῶν μὲν ὄντων ὡς ἔστιν, τῶν δὲ οὐκ ὄντων ὡς οὐκ ἔστιν.*
>
> Man is the measure of all things, of what is that it is and what is not that it is not. (DK 80 B 1)

is just to assert that whatever humans think *is in fact the case* – that is, (**MB**).[47] Protagoras' doctrine is thus a form of what might be called *infallibilism*.[48] We are infallible about how things are: the wind really is cold for me and really is hot for you.

Gorgias' argument is tailor-made for the Protagorean version of (**MB**).[49] Unlike Parmenides' goddess, Protagoras is explicitly concerned with what can be known *by humans*; and it is precisely this which Gorgias challenges in the conclusion of Part II. And for just the same reason, Protagoras lacks the goddess' means of defense: he is not in any position to deny that we can think of a chariot racing on sea. Such thoughts typically enter the human mind – to deny that would be to remove any teeth the *homomensura* has. But then Gorgias' *reductio* is

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[45] As Gigon, 1936, 206 rightly noted in several of these cases. For references to Protagoras and *On Expertise*, see p. 217 and pp. 225–6 below, respectively. Anaxagoras: DK 59 A 28. Metrodorus of Chios: DK 70 B 2. Euthydemus: Plato *Euthydemus* 283e–284c. Cratylus: Plato *Cratylus* 429c–434b. Antisthenes: V A 152, 153, 155 Giannantoni (cf. D. L. 6.1).

[46] Indeed, Plato includes the veridical version in his characterization of the sophist at *Sophist* 260c-d, as Di Benedetto rightly points out (1955, p. 290): 'we said that the sophist had himself taken refuge in this arena, while having denied that there was, or had ever come about, anything false at all, on the grounds that no one thinks or says what is not, since nothing that is not can in any way participate in being' (*Τὸν δέ γε σοφιστὴν ἔφαμεν ἐν τούτῳ που τῷ τόπῳ καταπεφευγέναι μέν, ἔξαρνον δὲ γεγονέναι τὸ παράπαν μηδ' εἶναι ψεῦδος· τὸ γὰρ μὴ ὂν οὔτε διανοεῖσθαί τινα οὔτε λέγειν· οὐσίας γὰρ οὐδὲν οὐδαμῇ τὸ μὴ ὂν μετέχειν*).

[47] On this point, I am in agreement with Di Benedetto, 1955, p. 290, and against Migliori, 1973, p. 83, who dismisses this line of interpretation as unconvincing (although without offering significant argument).

Di Benedetto further suggests (pp. 290, 297–8) that the opposition to Protagoras is evident even in the title '*On Not Being*,' as Protagoras is reputed to have written a treatise entitled '*On Being*' (*Περὶ τοῦ ὄντος*) – cf. DK 80 B 2. But as the evidence for both titles is not beyond question, and there are in any event several possible targets here (in particular, Melissus' treatise), this must remain a conjecture. See n. 00 below.

[48] To borrow a term from Gail Fine's excellent discussion of Protagorean relativism in Plato's *Theaetetus* (1996, esp. p. 129). To claim that we are infallible about objects is to hold that the properties of objects *really* vary whenever they appear differently, even if those properties are merely relational ones that essentially involve a perceiving subject. As she points out, it is only on such a reading that we can make sense of Plato's claim that Protagoras' theory presupposes a kind of Heracliteanism (the so-called 'Secret Doctrine').

[49] Evidence for relative chronology is hazy, but I am assuming (i) that Olympiodorus' dating of *On Not Being* to 444 BCE is at least roughly right (despite the somewhat suspicious coincidence of this date with the founding of Thurii), and (ii) that the elder Protagoras had already developed his views on truth by this point.

ineluctable. It is a direct challenge to the Protagorean, contrary to the frequent attempts to make allies of the two thinkers (see n. 2 above).[50]

This shows that there are two quite different ways in which one can embrace (**MB**). If we maintain our ordinary intuitions about what can be thought, (**MB**) commits us to there being such things in reality. If, on the other hand, we maintain our ordinary intuitions about what isn't real, then (**MB**) requires us to deny that such things can even be thought. In itself, (**MB**) makes no commitment either way: it simply expresses a certain relation between what there is and what can be thought. It is only when further assumptions are added, about what there in fact is or what can in fact be thought, that (**MB**) yields consequences, either by affirming the antecedent or by denying the consequent – Protagoras' *modus ponens*, if you will, is the goddess' *modus tollens*. In her hands, (**MB**) is the axe of a deflationary ontology; in Protagoras' hands, the engine of a fully inflationary one.[51]

But then why not grant there is a chariot-team 'striving on the sea' – why can't Protagoras just stare Gorgias' counterexample down? After all, one might object, if Protagoras maintains, beyond mere perceptual relativism, a general relativism of truth, he could allow each person to be the arbiter of what is possible and impossible: then, for the person who thinks of the chariot-team on the sea, it would not be impossible after all, against what Gorgias had assumed. As already noted, I do not think this is a correct interpretation of Protagoras. But putting that aside, Gorgias would still have leverage over such a relativist, so long as he continues to honor ordinary intuitions about what we can think. For clearly a chariot-team on the sea will seem an impossibility to *some* people who think of it, and according to (**MB**), if it even *appears* impossible, it will *be* impossible. And yet such a person can still think of a chariot-team striving on the sea; and so by (**MB**) what cannot happen would happen after all, thus resulting in contradiction.[52] Relativizing these truths to a subject, it should be noted, makes no difference here at all. For we still arrive at contradictions, since in the case described all the truths in question are relative to the *same* subject at the same time. The only way such a subject could avert disaster would be by *never thinking* certain things that we obviously can, and typically do, think – that is, the relativist can save his doctrine only by *abandoning our ordinary intuitions* about what we can think.[53] Gorgias' argument thus keeps its point. To remain true to these intuitions, as Protagoras wishes, we must reject (**MB**).

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[50] The gist of this was already seen clearly by Levi, 1941, pp. 175–6 (= Levi, 1966, pp. 220–1); but it is Di Benedetto, 1955, 299–300, who explicitly makes the link with Protagoras.

[51] Cassin is thus wrong to claim that it is Parmenides' ontology 'and it *alone*' that guarantees infallibility (1995, p. 47; emphasis mine).

[52] One might object that this is unacceptable only if the Principle of Non-Contradiction holds. But Gorgias only needs one case for his *reductio* to work; and he secures that, provided that there is a person who (i) thinks that the Principle of Non-Contradiction in fact *holds*, in addition to (ii) thinking that it is impossible that a chariot-team strive on the sea while also (iii) thinking of a chariot-team striving on the sea. And surely there are such people.

[53] A better response for Protagoras, one might think, would be to argue (i) that the *homomensura* only concerns what humans *believe* or more generally *take* to be the case and (ii) that Gorgias' counterexamples to (**MB**) crucially involve imagination. But such a defense is not ultimately satisfying. Grant, for the sake of argument, that there couldn't be a person who *believed* the sorts of things in question; there is still a deeper problem. The motivation behind (**MB**) is a general conceptual point that applies to *all* intentional states: it holds that for a mental state to be about anything, there must be something for it to be about. Holding that (**MB**) only holds in some restricted form therefore requires independent motivation. One can easily motivate a version of (**MB**), for example, that is restricted to *epistemic* states: if one knows that *p*, then it is the case that *p*, by definition. But there does not seem to be an independent motivation for restricting (**MB**) to *doxastic* states, as this defense of Protagoras requires. Protagoras is caught, as it were, between Gorgias and Plato, between the intentional and the epistemic. (I would like to thank Dominic Scott for valuable discussion on this point.)

Sextus' Account of the Strategy Behind the Intentional Arguments

As we noted earlier, while the *MXG* does not state the main conclusion of Part II until after a further argument, Sextus draws it immediately at the end of the intentional argument. This requires an inference different from anything we find in *MXG*, and Sextus supplies it, attributing it explicitly to Gorgias:

> Ὅτι δὲ κἂν ᾖ τι, τοῦτο ἄγνωστόν τε καὶ ἀνεπινόητόν ἐστιν ἀνθρώπῳ, παρακειμένως ὑποδεικτέον. εἰ γὰρ τὰ φρονούμενα, φησὶν ὁ Γοργίας, οὐκ ἔστιν ὄντα, τὸ ὂν οὐ φρονεῖται.
>
> Next it is to be shown that even if there should be something, it cannot be known or conceived by a human. For if, Gorgias says, the things had in mind are not things that are, then what is is not had in mind. (*M.* 7.77)

Unfortunately, there are systematic ambiguities here, as in what immediately follows it, involving quantifiers and negation. If we construe these claims in the customary way, taking the definite article to indicate universal quantification and giving negation narrow scope, each is equivalent to a universal negative statement. That at least gives Gorgias a valid argument. By establishing for any permissible substituend of '*x*' that

M[B] If *x* is had in mind by someone, then *x* is *not*

it follows trivially by contraposition that

B[M] If *x* is, then *x* is *not* had in mind by anyone.

But assuming that each of these is intended to hold necessarily, and not merely as contingent matters of fact, it reasonably follows that

B[K] Necessarily, if *x* is, then *x* is *not* known

since nothing can be known if it cannot be had in mind by anyone.

According to Sextus' account of Gorgias' strategy, then, Gorgias only needs to establish (**M[B]**) in order to secure the general conclusion of Part II. But that just shows how incredibly strong (**M[B]**) is; and Gorgias hasn't a hope of offering a cogent argument for it. In both versions, the intentional argument merely offers a *reductio* by counterexample; and while this is sufficient to *refute* a general thesis such as (**MB**), it is not sufficient to *establish* the contrary generalization, (**M[B]**), in its place.[54] And no other argument for (**M[B]**) is offered, either in Sextus' version or in the *MXG*. This point bears special emphasis, since it is only a thesis like (**M[B]**) that supports subjectivist interpretations of Gorgias, according to which objects of thought are *only* 'in the mind' and not in reality, which is precisely what (**M[B]**) states.

Someone might object, however, that whether or not Gorgias can *establish* (**M[B]**), it is reasonable to assume he *accepts* it – Sextus, at any rate, seems to think so. And even though (**M[B]**) is quite extreme, we do find it ascribed to a rough contemporary of Gorgias, Xeniades of Corinth, who apparently claimed that

> πάντ' εἰπὼν ψευδῆ καὶ πᾶσαν φαντασίαν καὶ δόξαν ψεύδεσθαι
>
> Everything, he said, is false and every appearance and belief deceives. (*M.* 7.53; cf. 7.399)

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[54] As Cook Wilson (1892–93, pp. 35–6), Calogero (1932, p. 200), and Graeser (1983, p. 36) rightly point out.

a position that Gigon, for example, characterizes as 'merely a variation on the Gorgianic idea' (1936, pp. 205–6).[55] One might argue further that Gorgias asserts both (**B[M]**) and (**M[B]**) himself in fragment B 26, at least if the participles are construed causally:

> ἔλεγε δὲ τὸ μὲν εἶναι ἀφανὲς μὴ τυχὸν τοῦ δοκεῖν, τὸ δὲ δοκεῖν ἀσθενὲς μὴ τυχὸν τοῦ εἶναι.
>
> He says that being is nonapparent *because* it does not attain seeming, while seeming is weak *because* it does not attain being.

The causal clauses can be reasonably taken to presuppose, respectively, that what is *never* seems to anyone to be the case, or (**B[M]**); and that what seems to be the case *never* is, or (**M[B]**). So it might seem that Sextus is justified after all.

But, as Diels already noted in his translation of the fragment (DK, vol. 2, p. 306),[56] the participles in B 26 can be construed conditionally instead of causally,[57] in which case the text reads quite differently:

> He says that being is nonapparent *if* it does not attain seeming, while seeming is weak *if* it does not attain being.

On this reading, Gorgias makes a much more innocuous statement about ignorance and false belief, respectively – what is in fact the case, if it does not seem to anyone to be the case, will remain unnoticed; and what seems to be the case, if it is not in fact the case, will not ultimately matter – just the kind of banal antithesis typical of Gorgias' style.[58] Considerations of grammar and the original context of the citation also favor a conditional reading.[59]

So B 26 does not offer independent support for the subjectivist theses found in Sextus, (**B[M]**) and (**M[B]**), or more generally sever being from appearance. On a conditional reading, B 26 is in fact compatible with cases where something *both* appears *and* in fact is, against both (**B[M]**) and (**M[B]**), as well cases where we have one but not the other. This fits well with what we know from Gorgias' extant writings. Both sorts of cases, for example, can be found towards the end of the *Defense of Palamedes*: Palamedes does not think he can make the truth apparent to the jurors (§35); he is confident, however, the real injustice of his punishment will be evident to the rest of the world (§36).[60] The emphasis on falsehood, moreover, is what we would have expected from our examination of the *MXG*. Falsehood is a clear counterexample to the thesis critiqued there, (**MB**).

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[55] For an excellent discussion of the evidence for Xeniades, see Brunschwig, 1984, translated in this volume.

[56] Though Kranz subsequently rejected this reading in the Nachtrag, DK vol. 2, p. 425.

[57] With Calogero, 1932, pp. 221–2 n. 1; Grieder, 1962, p. 43 n. 28; Lesky, 1971, pp. 505–6.

[58] For example, 'it is equally an error and ignorance to blame what is worthy of praise and to praise what is worthy of blame' (*Hel.* §1); 'for the stronger is not by nature hindered by weaker, but the weaker is ruled and led by the stronger, that is, while the stronger leads, the weaker follows' (*Hel.* §6); 'so then, if I am wise, I did not err; and if I erred, I am not wise' (*Palam.* §26). Also *Palam.* §3 *passim*.

[59] As Lesky has shown (1971, pp. 505–6): the use of μή with the causal use of the participle would be an exception to the general rule in the classical period (Schwyzer-Debrunner, *Griechische Grammatik* vol. 2, p. 594); and in the original context of the citation, Proclus clearly contests just the weaker thesis that seeming is weak if untrue, as given by conditional reading (*Scholia vetera in Hesiodi Opera et dies*, *ad* 760–4, 232.10–16 Pertusi).

[60] Mansfeld, 1985, takes much of the *Palamedes* to concern 'personal knowledge,' consistent with the relativist reading he offers of *On Not Being*. I am inclined, though, to take the *Palamedes*' clear statements about truth at face value, as concerning objective states of affairs that can, but need not, be known by individuals.

The fact remains, however, that according to Sextus, Gorgias actually *says* (*φησὶν ὁ Γοργίας*) that 'if the things had in mind are not things that are, then what is is not had in mind.' And Sextus plainly interprets this as an inference from one subjectivist thesis to the other,

A. M[B] ⊢ B[M]

as is clear from the logical analysis he immediately goes on to offer for this claim:

> *καὶ κατὰ λόγον· ὥσπερ γὰρ εἰ τοῖς φρονουμένοις συμβέβηκεν εἶναι λευκοῖς, κἂν συμβεβήκει τοῖς λευκοῖς φρονεῖσθαι, οὕτως εἰ τοῖς φρονουμένοις συμβέβηκε μὴ εἶναι οὖσι, κατ' ἀνάγκην συμβήσεται τοῖς οὖσι μὴ φρονεῖσθαι. διόπερ ὑγιὲς καὶ σῷζον τὴν ἀκολουθίαν ἐστὶ τὸ εἰ τὰ φρονούμενα οὐκ ἔστιν ὄντα, τὸ ὂν οὐ φρονεῖται. τὰ δέ γε φρονούμενα (προληπτέον γάρ) οὐκ ἔστιν ὄντα, ὡς παραστήσομεν· οὐκ ἄρα τὸ ὂν φρονεῖται.*
>
> And reasonably so. For just as [the following is the case]:
>
> > If being white is an attribute of things had in mind, then being had in mind would also be an attribute of white things
>
> so too
>
> > If not being things that are is an attribute of things had in mind, then necessarily not being had in mind will be an attribute of things that are.
>
> For this reason, then, [the inference] 'if the things had in mind are not things that are, then what is is not had in mind' is valid and preserves entailment. But, as was to be expected, things had in mind are not things that are, as we are about to show. Therefore what is is not had in mind. (*M.* 7.77–8)

If Sextus is right, the prospects for Gorgias are quite depressing: his argument would rest on fairly transparent fallacies. Each of the propositions Sextus uses is ambiguous with regard to quantity: each can be construed as either a universal or a particular generalization. Yet whichever way we construe them, if we construe them all in the same way, at least one inference will be invalid. The first conditional is valid only if it involves particular affirmatives, while the second is valid only if it involves universal negatives.[61] And if we construe each differently, then the similarity in form is merely superficial and so no longer offers a shared basis for validity, as Sextus' justification presupposes. In either case, then, the argument Sextus offers does not support (**A**), the inference he attributes to Gorgias.

At this point, we might reasonably question whether Sextus understood Gorgias correctly in the first place. Fortunately, each part of the conditional he attributes to Gorgias – viz., 'the things had in mind are not things that are' and 'what is is not had in mind' – can be read in a different way. If, unlike Sextus, we assign the negations *wide* scope, both statements become *denials* of universal affirmative statements:

[MB] It is *not* the case that (for any *x*, if *x* is had in mind, then *x* is)
[BM] It is *not* the case that (for any *x*, if *x* is, then *x* is had in mind)

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[61] From 'some things had in mind are white' it follows that 'some white things are had in mind'; but from 'all things had in mind are white' it does not follow that 'all white things are had in mind.' On the other hand, from 'nothing had in mind is' it follows that 'nothing that is is had in mind'; whereas from 'some things had in mind are not things that are' it does not follow that 'some things that are are not had in mind.'

Thus understood, each claim is far more reasonable – most of us, in fact, would readily assent to both. They are also easier to establish. As denials of universal generalizations, they logically require only a single counterexample. The first, (**[MB]**), is established directly by the intentional arguments in both versions: the chariot-team on the sea is intended precisely as a refutation of the original (**MB**). The second thesis, (**[BM]**), is slightly more ticklish, but only for pragmatic, and not logical, reasons: although there may be genuine counterexamples, we could not find any compelling, since as soon as we consider them, they would be had in mind and so cease to be counterexamples. Nevertheless, we might take (**[MB]**) as a reasonable basis for accepting (**[BM]**), even though it does not logically follow: for once a necessary connection between mind and being has been ruled out in the better motivated case, (**MB**), there is even less reason to accept it in the less motivated one, (**BM**). That is, Gorgias may well endorse

B. If **[MB]**, then **[BM]**

even if the consequent cannot be *logically derived* from the antecedent, as (**A**) assumes.

This should lead us to question Sextus' other pretense, namely, that these arguments by themselves give us reason to conclude,

B[K] Necessarily, if *x* is, then *x* is *not* known.

For this result does not follow either from (**[MB]**) or from (**[BM]**); and they do not seem to provide reasonable grounds for inferring it either. But this is all for the best. On Sextus' interpretation, the subsequent epistemological argument becomes superfluous, since he takes Gorgias to have already secured the main conclusion of Part II. In fact, when Sextus actually comes to the epistemological argument, he seems confused and returns to the chariot racing on the sea, making it a degenerate form of intentional argument – the epistemological details play no role in the argument at all. The fact that the *MXG* version does not draw the main conclusion until *after* the epistemological argument suggests that it might, on the contrary, play an integral and necessary part of Gorgias' strategy.

Sextus' report, then, is doubly misleading. He misconstrues both the logical form of the main theses in Part II and the logical relations between them. If his report has value, it can only be in his reports of the individual arguments.[62]

The Intentional Arguments: Sextus' Version

The first intentional argument in Sextus is offered against (**MB**), which Sextus explicitly formulates in veridical terms:

> *εἰ γὰρ τὰ φρονούμενά ἐστιν ὄντα, πάντα τὰ φρονούμενα ἔστιν, καὶ ὅπῃ ἄν τις αὐτὰ φρονήσῃ. ὅπερ ἐστὶν ἀπεμφαῖνον· [εἰ δέ ἐστι, φαῦλον.] οὐδὲ γὰρ ἂν φρονῇ τις ἄνθρωπον ἱπτάμενον ἢ ἅρματα ἐν πελάγει τρέχοντα, εὐθέως ἄνθρωπος ἵπταται ἢ ἅρματα ἐν πελάγει τρέχει. ὥστε οὐ τὰ φρονούμενά ἐστιν ὄντα.*
>
> For if the things had in mind are things that are, then all things had in mind are, and in whatever way one might have them in mind. Which is outrageous: for it is not the case that if one were to have in mind a flying man or a chariot-team racing on the sea, then *eo ipso* a man flies or a chariot races on the sea. Consequently, the things had in mind are not things that are. (*M.* 7.79)

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62 I am thus sympathetic with the conclusions in Migliori, 1973, pp. 71–5, even though our analyses of the flaws differ thoroughly.

The argument here is not substantially different from the intentional argument in *MXG*. The version of (**MB**) at issue is still a propositional one, and the problem concerns thoughts about states-of-affairs that are *prima facie* impossible. In Sextus' version, the conclusion is explicitly rejected as absurd and used to overturn the premise on which it rests, (**MB**). This is how the *MXG* argument should be interpreted in any case.

The second intentional argument Sextus offers is more interesting, since most of it is unparalleled in the *MXG*:

> *πρὸς τούτοις εἰ τὰ φρονούμενά ἐστιν ὄντα, τὰ μὴ ὄντα οὐ φρονηθήσεται. τοῖς γὰρ ἐναντίοις τὰ ἐναντία συμβέβηκεν, ἐναντίον δέ ἐστι τῷ ὄντι τὸ μὴ ὄν· καὶ διὰ τοῦτο πάντως εἰ τῷ ὄντι συμβέβηκε τὸ φρονεῖσθαι, τῷ μὴ ὄντι συμβήσεται τὸ μὴ φρονεῖσθαι. ἄτοπον δ' ἐστὶ τοῦτο· καὶ γὰρ Σκύλλα καὶ Χίμαιρα καὶ πολλὰ τῶν μὴ ὄντων φρονεῖται. οὐκ ἄρα τὸ ὂν φρονεῖται.*
>
> In addition, if the things had in mind are things that are, then the things that are not will not be had in mind. For opposites are attributes of opposites, and what is not is opposite to what is. For this reason, if being had in mind is an attribute of what is, then obviously not being had in mind will be an attribute of what is not. But that is absurd: for Scylla, Chimaera, and many other things that are not are had in mind. What is, then, is not had in mind. (*M.* 7.80)

This argument begins much as the intentional argument in *MXG* does, by validly inferring (**[B][M]**) from (**MB**), by contraposition:

C. **MB ⊢ [B][M]**

But immediately following this inference, Sextus offers a logical analysis that once again does not fit. The principle that 'opposites are attributes of opposites' sounds like it belongs to Gorgias: a similar principle, at any rate, underlies an argument in Part I (cf. *MXG* 979a28–9; *M.* 7.67). But it is adventitious here, as the Aristotelian terminology in Sextus' explanation makes evident, since it involves a quite different inference, namely, the *invalid* inversion:

D. **BM ⊢ [B][M]**

A proclivity for logical punditry has once again led Sextus astray.

The argument in fact appears to be a *reductio* of (**[B][M]**) by counterexample, roughly parallel to the first intentional argument. But the counterexamples differ in a crucial way.[63] The principle involved here requires that (**[B][M]**) be construed existentially:

1′ Necessarily, if *x* does *not* exist, then *x* is *not* had in mind by anyone.
2′ Scylla does *not* exist.
∴ 3′ Scylla is *not* had in mind by anyone.

Because the target here is the contrapositive thesis, (**[B][M]**), rather than the positive (**MB**), the order of the argument differs: it is the conclusion, rather than the minor premise, that concerns what can be thought. This completely alters the pragmatic force of the *reductio*. The conclusion is objectionable, not because it represents an impossibility, but because it is *pragmatically self-refuting*: as soon as we read (3′) and understand it, we have thereby thought of Scylla and thus demonstrated its falsehood. Short of declaring (3′) unintelligible, there is no alternative for Gorgias' opponent: he must reject one of the premises. The proponent of (1′) can, if he likes, reject (2′): it is a factual premise and can be denied without contradiction. But claiming that

[63] Against Calogero (1932, p. 200) and Newiger (1973, pp. 142, 145), who take the examples to be exactly on a par.

Scylla exists obviously comes at a cost for a theorist who is trying to defend our ordinary intuitions.

Sextus' report has aroused some suspicion, though, because it involves an existential use of the verb 'to be,' which, it is claimed, does not occur until much later.[64] But this worry is ill-founded. The appeal to mythical creatures as an example of something manifestly fictitious occurs already in Xenophanes, who dismisses titans, giants, and centaurs as the 'fabrications' (*πλάσματα*) of earlier generations (B 1.21–2). And in the fifth century such worries are naturally extended to the gods themselves. In his profession of agnosticism, Protagoras uses the unadorned verb 'to be' to make a point about the existence of gods and explicitly distinguishes this from concerns about what *sort* of thing they are (by adding the interrogative *ὁποῖοι* to the verb 'to be'):

> *περὶ μὲν θεῶν οὐκ ἔχω εἰδέναι, οὔθ' ὡς εἰσὶν οὔθ' ὡς οὐκ εἰσὶν οὔθ' ὁποῖοί τινες ἰδέαν.*
>
> I have no knowledge about the gods: neither that they are, nor that they are not, nor what they are like in form. (B 4)

There is nothing anachronistic, therefore, in attributing an existential use of the verb 'to be' to Gorgias. Given that Sextus' version contains material of value not preserved in the *MXG*, and there is no persuasive objection against it,[65] we can tentatively accept this passage as potential evidence for another intentional argument, concerning nonexistent objects and directed at the negative thesis, (**[B][M]**), in addition to the first argument concerning the positive thesis (**MB**).

The Epistemological Argument: The *MXG* Version

In the *MXG*, the intentional argument is *not* meant to establish the main conclusion of Part II independently of the epistemological argument. They are meant to be read as part of a single strand of argument, for an epistemological conclusion. This requires that the epistemological argument deliver the *coup de grâce*.[66]

The epistemological argument picks up precisely where the intentional argument leaves off. And the conclusion of the intentional argument is quite moderate: it does not claim that we are *never* able to apprehend what is in the world, but only that the world does *not always* correspond to what we have in mind. The problem then becomes, to put it crudely, whether we can 'sort out the good from the bad' – whether there is some principled ground for privileging one kind of mental state over another. In the absence of any such difference, it might seem as though knowledge would be impossible and opinion 'allotted to all' (Xenophanes B 34).

Gorgias sharpens the problem by focusing on cases of conflict, cases where we seem to have incompatible things in mind and which therefore require adjudication. He is concerned in particular with the conflict between sense experience and reason, not an unreasonable worry for those working in the wake of Parmenides:

> *καὶ*
> *γὰρ τὰ ὁρώμενα καὶ ἀκουόμενα διὰ τοῦτό ἐστιν, ὅτι φρο-*
> *νεῖται ἕκαστα αὐτῶν· εἰ δὲ μὴ διὰ τοῦτο, ἀλλ' ὥσπερ οὐδὲν*
> 15 *μᾶλλον ἃ ὁρῶμεν ἐστίν, οὕτω ⟨οὐ⟩ μᾶλλον ἃ [ὁρῶμεν ἢ] διανοούμεθα.*
> *καὶ γὰρ ὥσπερ ἐκεῖ πολλοὶ ἂν ταῦτα ἴδοιεν, καὶ ἐνταῦθα*
> *πολλοὶ ἂν ταῦτα διανοηθείημεν. τί οὖν μᾶλλον*

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[64] Ebbesen, 1986, p. 116; cf. Gigon, 1936, p. 204.

[65] For a similar case in Part III, see Mourelatos, 1987, pp. 158–64.

[66] Against Newiger (1973, p. 170), who remarks that 'so little of the discussion' in Part II concerns knowledge, apart from the conclusion.

17a δῆ⟨λον εἰ τοιάδ' ἢ⟩ τοιάδ' ἐστί; ποῖα δὲ τἀληθῆ, ἄδηλον. ὥστε καὶ εἰ ἔστιν, ἡμῖν γε ἄγνωστα εἶναι τὰ πράγματα.

13 ἐστιν] ἔσται Apelt || ὅτι ὁρᾶται καὶ ἀκούεται, καὶ ὁμοίως τὰ φρονούμενα ἔστιν ante ὅτι add. Diels || 15 ἃ ἀκούομεν ἢ post μᾶλλον add. Sicking || ἃ L: om. R || ἢ ὁρῶμεν ante ἐστίν add. Apelt || οὐ add. Apelt γ' οὐδὲν add. Cook Wilson || ὁρῶμεν ἢ del. Diels: ἢ Apelt ἢ ἃ add. Sicking || 17. 17a πολλοὶ] πολλὰ Diels || ταῦτα] ταὐτὰ Cook Wilson || διανοηθείημεν] διανοηθεῖεν Apelt || τί Didotiana: τὸ codd. || δῆ⟨λον εἰ τοιάδ' ἢ⟩ τοιάδ' Apelt: δὴ … τοιάδ' Bekkeri codd. (lac. 11 litt.): sine lac. L: ὅτι οὐδεν μᾶλλον διανοητὰ τοιάδε ⟨ἢ τοιάδε⟩ conj. Diels

For things seen and things heard both are, due to the fact that each of them is had in mind. But if it isn't due to this, then just as what we see no more is [than is not] so what we think no more [is than is not] – for just as many over there might see these things, so many of us here might think these things – why, then, is it clear that they are of this sort rather [than that sort]? Of which sort the true ones are is unclear. Consequently, things cannot be known by us, even if there is [something]. (*MXG* 980a12–19)

Gorgias' argument here offers a dilemma, with each arm constituting a form of indifference argument. The first arm targets (**MB**), extending the intentional argument to the senses: seeing and hearing involve 'having things in mind' (*φρονεῖσθαι*) just as much as thinking in a more narrow sense (*διανοεῖσθαι*) does. Gorgias does not pursue this line further, but abruptly switches to the second arm. The suggestion clearly is, however, that the first arm is not tenable. And the reason is not far to seek. Since all mental states equally involve having things in mind, then by (**MB**) whatever we sense or think will obtain in reality, even if our experiences should conflict – as they no doubt will – and this, surely, is unacceptable.[67] But if it is not the case that whatever we have in mind obtains in reality, then we have abandoned (**MB**) in its most general form: not all experiences are true. And this is precisely where the second arm of the dilemma comes in. For absent some general correspondence like (**MB**), it will no longer be clear in such conflicts whether things are in accordance with one mental state rather than another. Hence, knowledge will be impossible.

Gorgias no more than alludes to the conflict between the senses and reason in the first arm. But the point is, after all, a familiar one in the Eleatic tradition. It features centrally, for example, in Melissus' argument against the senses. What we see and hear is incompatible, he argues, with what we understand by reason to be true; yet it is not possible to satisfy both. Therefore, if (**MB**) has to apply equally to both the senses and reason, the only conclusion we could draw is that *neither* can apprehend reality:

ὥστε συμβαίνει μήτε ὁρᾶν μήτε τὰ ὄντα γινώσκειν.

So it follows that we neither see nor know the things that are. (B 8, DK vol. 1, p. 274.12)

Melissus' target here is clearly the sophistic author of *On Expertise*, who maintains, in virtually the same terms, the opposite thesis:

ἀλλὰ τὰ μὲν ἐόντα αἰεὶ ὁρᾶταί τε καὶ γινώσκεται, τὰ δὲ μὴ ἐόντα οὔτε ὁρᾶται οὔτε γινώσκεται.

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[67] Newiger again thinks it necessary here to supply an implicit assumption, 'if what is is thought' (see n. 25 above), and so takes the conclusion to be accordingly restricted: the objects of sight and hearing are, but only '*qua φρονούμενα*' (1973, pp. 129–30). But as before, the argument is intelligible on its own without such additions. All Gorgias is doing is pursuing the consequences of (**MB**), the converse of the thesis Newiger thinks is at stake.

> But the things that are are always seen and known, while those that are not are neither seen nor known.(*On Expertise* 2, 38.2–4 Gomperz)

The author of *On Expertise* insists that seeing and knowing are both intentional states along the lines of (**MB**), because it would be absurd to believe that what is seen is something that is not:[68]

> εἰ γὰρ δὴ ἔστι γ' ἰδεῖν τὰ μὴ ἐόντα ὥσπερ τὰ ἐόντα, οὐκ οἶδ' ὅπως ἄν τις αὐτὰ νομίσειε μὴ ἐόντα, ἃ γε εἴη καὶ ὀφθαλμοῖσιν ἰδεῖν καὶ γνώμῃ νοῆσαι ὡς ἔστιν. ἀλλ' ὅπως μὴ οὐκ ᾖ τοῦτο τοιοῦτον.
>
> For if it is in fact possible to see things that are not just as [it is possible to see] things that are, I do not know how a person could believe that they are not, things which he can see with his eyes and can grasp with his mind that they are. But it is impossible that things should be so.(*On Expertise* 2, 36.20–38.2 Gomperz)

Yet if Melissus is right, we cannot afford to be so sanguine. For there will be cases where the senses and reason conflict, and so something will have to give – the problem of conflicting appearances requires some sort of further response. Melissus himself settles in favor of reason, against the senses, without argument. He does not explain, moreover, how vision and hearing can be false, or indeed how anything other that what is could ever seem to us to be the case. But he recognizes clearly that (**MB**) cannot be maintained in its full generality.

The first arm of Gorgias' epistemological argument hints at a similar worry. Going beyond the intentional argument, which objects to (**MB**) on the grounds that some mental states do not correspond to reality, it raises the specter of conflict between mental states and with it a new threat to (**MB**). The second arm takes the logical next step.[69] Suppose (**MB**) *isn't* true without restriction (εἰ δὲ μὴ διὰ τοῦτο, 980a14).[70] What then? Not Melissus' conclusion, according to Gorgias. For the rejection of (**MB**) in the case of sense experience does *not* entail that *all* such experiences are false. It only shows that sense experience, as a class, is *not always* true: while *some* sense experiences are true, *some* are false, which Gorgias expresses by saying that what we see 'no more is the case [than is not the case]' (980a14–15).[71] And the same will hold, he

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[68] T. Gomperz, 1910, pp. 97–8, interprets this claim as follows: if we could have appearances of what is not real, we would not have any 'secure mark' to distinguish the real from the unreal – precisely what we find in the second arm of the epistemological argument in the *MXG*. Whether the author of *On Expertise* had this in mind or not, it is at any rate not explicit in that text. But Gomperz is surely right to anticipate the objection.

[69] For a different understanding of the dialectical relation between Gorgias' and Melissus' arguments, see Newiger, 1973, p. 136. In tracing the similarities between the two, Newiger seems to collapse the epistemological argument into the intentional argument, much as Sextus does (see below, pp. 228–9). Newiger does, however, recognize an epistemological dimension to the argument: whereas Melissus rules in favor of reason in the conflict between reason and the senses, Gorgias' verdict in his view is a simple *non licet*. But in fact Gorgias goes further than that: see below, p. 228.

[70] Cook Wilson (1892–93, p. 34; also endorsed by Newiger, 1973, pp. 131–3 and 1979, p. 55) takes this argument quite differently: to the response that we can resolve conflicts between perception and thought by appeal to consensus, Gorgias objects that there will be consensus about false beliefs as well. This reading depends, however, entirely on his emendation of ταυτά to ταὐτά. The reading adopted above stays closest to the manuscripts.

[71] Although the phrase 'no more' (οὐ μᾶλλον) is widely recognized as a hallmark of later scepticism, philosophical uses of the phrase can already be found in the 5th century to indicate that one state-of-affairs is not the case *rather than* another: for example, Democritus, *apud* Theophr. *Sens.* 69; Sext. Emp. *P.* 1.213; Arist. *Metaph.* I.4, 985b8, IV.5, 1009b9–12 (= DK 68 A 12); Plut. *Adv. Colot.* 1109a. For a survey, see De Lacy, 1958, esp. pp. 59–61.

The passage from *Metaphysics* IV.5 is especially pertinent, as has often been noted (for example, Apelt, pp. 216–17 n. 2; Calogero, 1932, p. 206 n. 1; Gigon, 1936, p. 208–9; Di Benedetto, 1955, pp. 301–

argues, by parity of reasoning for what we think, since just as there will be other people somewhere else that perceive things differently, we will likewise think differently than they do (a16–17). Consequently, what we think will not always be the case: *some* thoughts will be true and *others* false (a15). There is, therefore, no guarantee *either* for what we perceive *or* for what we think.[72] Gorgias' argument is again valid – it is a form of indifference reasoning.[73] For if one accepts the premise that there are no relevant differences between perception and thought regarding intentionality (*ἀλλ' ὥσπερ … οὕτω*, a14–15), then either *both* must be infallible or *neither*; but both cannot be infallible, because of the conflicts that exist between them; therefore neither is infallible. Gorgias is fully entitled, then, to ask the question he does: *on what grounds* can we privilege one over the other? Melissus, at least, has not given us any.[74]

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2). In it, Aristotle considers the view that opposites appear to different species of animals and even to a single individual at different times; and then he continues, 'of these, which sort is true or false is unclear; for this [sort] isn't any more true than that [sort], but they are similarly disposed. It is for this reason, at any rate, that Democritus claims either that nothing is true or that it is at least unclear to us (*ποῖα οὖν τούτων ἀληθῆ ἢ ψευδῆ, ἄδηλον· οὐθὲν γὰρ μᾶλλον τάδε ἢ τάδε ἀληθῆ, ἀλλ' ὁμοίως. διὸ Δημόκριτός γέ φησιν ἤτοι οὐθὲν εἶναι ἀληθὲς ἢ ἡμῖν γ' ἄδηλον*, 1009b9–12). This has sometimes been understood as the claim that no *token* mental state, of any kind, is more true than any other *token*, of any other kind – that all mental states are equally true, or perhaps all equally false. This reading should be resisted, however, since the latter alternative is as self-refuting as the former, a point that would not have been lost on Democritus in particular, given his criticism of Protagoras along just these lines (*apud* Sext. Emp. *M.* 7.389 = DK 68 A 114 & 80 A 15). Either alternative, moreover, would make nonsense of his philosophy. Democritus is far more likely to have made the epistemological claim that it is *not clear to us* whether any given appearance is true. And this might reasonably be thought to follow if we read the passage above as primarily concerned with types rather than tokens, something clearly indicated by *ποῖα*, 'of which *sort*': the claim would be that truth does not belong to one *type* of mental state rather than another. That is, truth no more belongs to *all* the token states *of one type* (such as perception), than to *all* the token states *of another* (such as thought). Rather, truth belongs to *some* of one and *some* of the other; and hence none of them provides a clear criterion of truth.

This reading is confirmed by other uses of the phrase *οὐ μᾶλλον*, where a type reading is clearly required. Leucippus and Democritus claim, for example, that atoms are 'no more' one shape rather than another – that is, they are not *all of one* shape rather than *all of another* shape; instead, *some* atoms are of one shape, *some* atoms of another (Simpl. *In Ph.* 28.4–27, esp. 10, 25–6 = in part, DK 67 A 8; in part DK 68 A 38). A token reading would require that no given atom had any one shape rather than another, thus making them all indeterminate, which is plainly absurd for an atomist to hold. It is not, at any rate, what Democritus is reported to have believed.

[72] The argument does not, then, rely on pitting the 'normal' person's adherence to the senses against the philosopher's adherence to reason, as Newiger claims (1973, p. 136; 1979, p. 54–6). The argument is rather that *just as* perceptions as a class are not true rather than false, *so too* thoughts as a class are not true rather than false. The appeal to what others experience is not aimed at favoring either type of mental state over the other, but at *undermining both* – it is used to extend the kinds of conflict at stake, so as to reject (**MB**) for both types of mental state. It certainly is not introduced as a relativistic assumption, as Calogero, 1932, pp. 205–7 claims.

[73] Grieder (1962, pp. 44–5) is the only author I have found who comes close to recognizing the essential role of indifference claims here.

[74] On this point, I am partially sympathetic with Loenen, 1959, pp. 181 ff., when he argues that Melissus is the target of Gorgias' treatise, not Parmenides. Lattanzi, 1932, p. 289, suggests Melissus is the primary target at any rate of the treatise, and appeals to the fact that the title of Gorgias' work – *On Nature or On Not Being* – may be a parody of the title of Melissus' work, *On Nature or On Being*. (On this point, see also Migliori, 1973, p. 86 n. 170; Kirk, Raven and Schofield, 1983, p. 102–3 n. 1; Wardy, 1996, p. 15.)

Such evidence is of limited value, however, as Protagoras is also reputed to have written a work entitled *On Being* (DK 80 B 2); see n. 47 above. Gorgias needn't in any case have had a single, or even

Gorgias thus has a successful right-left combination. The thesis of intentionality, (**MB**), when taken in full generality, leads to contradictions. But restricting its scope does not appear to be viable either: we have not yet been given any principled reason why (**MB**) should apply to one mode of cognition rather than another; and without such a reason, (**MB**) will have to be rejected for cognition in general. But then there would be no guarantee of truth for *any* mode of cognition – within any given type, some cognitions will be true and others false – and this leaves us in serious need of a criterion of truth. Gorgias has not shown that such a criterion is in principle impossible. But it is clearly not to be found in the theories then available, and so he is right to press the challenge: without such a criterion, knowledge will be impossible, *even if* there is something in the world. The conclusion of Part II is not that we cannot think of anything, or even that we cannot think anything truly; but only that we cannot *know* anything, even if we were to think truly.[75]

The Epistemological Argument: Sextus' Version

The argument in Sextus requires little comment, since it contains little new argument. As already pointed out, as it proceeds, it degenerates into another instance of the first intentional argument:

> ὥσπερ τε τὰ ὁρώμενα διὰ τοῦτο ὁρατὰ λέγεται ὅτι ὁρᾶται, καὶ τὰ ἀκουστὰ διὰ τοῦτο ἀκουστὰ ὅτι ἀκούεται, καὶ οὐ τὰ μὲν ὁρατὰ ἐκβάλλομεν ὅτι οὐκ ἀκούεται, τὰ δὲ ἀκουστὰ παραπέμπομεν ὅτι οὐχ ὁρᾶται (ἕκαστον γὰρ ὑπὸ τῆς ἰδίας αἰσθήσεως ἀλλ' οὐχ ὑπ' ἄλλης ὀφείλει κρίνεσθαι), οὕτω καὶ τὰ φρονούμενα καὶ εἰ μὴ βλέποιτο τῇ ὄψει μηδὲ ἀκούοιτο τῇ ἀκοῇ ἔσται, ὅτι πρὸς τοῦ οἰκείου λαμβάνεται κριτηρίου. εἰ οὖν φρονεῖ τις ἐν πελάγει ἅρματα τρέχειν, καὶ εἰ μὴ βλέπει ταῦτα, ὀφείλει πιστεύειν, ὅτι ἅρματα ἔστιν ἐν πελάγει τρέχοντα. ἄτοπον δὲ τοῦτο· οὐκ ἄρα τὸ ὂν φρονεῖται καὶ καταλαμβάνεται.
>
> And just as things seen are said to be visible due to the fact that they are seen, and audible things are said to be audible due to the fact that they are heard, and we don't reject visible things because they are not heard or dismiss audible things because they are not seen – since each ought to be discerned by its own sense and not by another – so there will be things in mind even if we do not see them by sight or do not hear them by hearing, because they are grasped by their own standard. So if one has in mind a chariot racing on the sea, even though one does not see this, one ought to believe that there is a chariot racing on the sea. But this is absurd. What is, then, is not had in mind or apprehended.(*M.* 7.81–2)

Sextus' version of the argument differs from the *MXG* in two important ways. First, Sextus does not treat having something in mind (*φρονεῖσθαι*) as a genus, under which seeing and hearing fall, but rather as a coordinate species.[76] He therefore needs to justify the application of (**MB**) to sense experience; and he does this by introducing an epistemic principle about the proper domain and authority of different mental states. But the principle in question is highly problematic. The

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primary, target in mind throughout the treatise. Indeed, he plainly did not – a point well emphasized by Levi, 1941 (= Levi, 1966); see also Migliori, 1973, p. 87.

For our purposes, however, the historical claim is ultimately less important than the dialectical one. In this passage, Gorgias is certainly targeting the *type* of position Melissus held, whether or not Melissus himself was an intended target at all.

[75] As Newiger rightly observes (1973, p. 137). The same conclusion seems to have been reached by Loenen (1959, pp. 192–6) and Guthrie (1962–81, p. 198), though their arguments for this point seem confused.

[76] Cook Wilson, 1892–93, p. 36; Newiger, 1973, pp. 130, 143.

expression 'what is seen' (τὰ ὁρώμενα), for example, can either signify (1) something that can be accessed *only* visually, perhaps the phenomenal quality of a color like ochre; or it can signify (2) something that is accessible by means of several senses *including* vision, that is, a visible object, such as a table. But the principle in question is plausible only if it involves 'what is seen' in the first, restrictive sense. If taken in the second sense, the authority that sight or any other sense possesses is only defeasible at best – its testimony can be overruled – and so would not provide the leverage the argument needs. The plausibility of the principle when taken in the first sense, though, is of little help. If 'what is seen' is construed in this way, the conflict envisaged between our experiences disappears entirely: what we see in this restricted sense, for example, counts neither for nor against what we hear. But then this case does not have any direct bearing on the *conflict* between seeing and thinking, as the argument requires. A classic equivocation: either the principle is plausible, but not relevant, or it is relevant, but not plausible; but in no case can it be both. And the explanation is near to hand: Sextus has simply borrowed a principle stated later in Part III (*MXG* 980b1–2; *M.* 7.83–5) and applied it in an inappropriate context.

Second, unlike the epistemological argument in *MXG*, Sextus' version is not dilemmatic. It assumes right up until the conclusion that (**MB**) holds quite generally – the second arm of the *MXG*'s dilemma is never taken up. Nor does Sextus' version reduce to the first arm of the *MXG* dilemma. The problem, on Sextus' version, is not conflict *per se*, that if (**MB**) were applied to all cognitions equally, it would lead to contradiction. The objection instead is simply that the thought in question is false: there are no chariots racing on the sea. But then it takes us no further than the first intentional argument already had.

Conclusion

In Part II of *On Not Being*, then, Gorgias argues against a certain strong thesis of intentionality, namely, that we can only have in mind what is, (**MB**). But he is not primarily concerned with this thesis as it occurs in Parmenides[77] – at any rate, his arguments would come to an abrupt impasse there, since the goddess can always respond on principle with silence. Gorgias seems to focus instead on later figures who apply (**MB**) to a human domain, including not only Melissus, but more importantly sophistic contemporaries such as Protagoras and the author of *On Expertise*, who take this thesis in new and different directions. Gorgias' strategy in the first intentional argument is to show that (**MB**) immediately leads to absurdities, and even impossibilities. In the subsequent epistemological argument, he extends the thesis to different forms of cognition and raises a dilemma. If (**MB**) is applied to *all* forms of cognition equally, it leads to contradiction. But then it applies to *none*, since there seems to be no clear reason to assign it to one form of cognition rather than another (in the way Melissus himself, for example, maintains). And that leaves us a serious problem, namely, of how to sort out the true from the false in any given mode of cognition – a problem that later came to be called the problem of the criterion and which we may perhaps credit Gorgias with having first motivated.

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[77] Against the general consensus: for example, Nestle, 1942, pp. 308–9; Bröcker, 1958; Newiger, 1973, p. 181.

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Chapter 17

To Tell the Truth: *Dissoi Logoi* 4 and Aristotle's Responses

Owen Goldin

I here consider ancient discussions of a peculiar phenomenon: a *logos*, understood as a sequence of written or spoken words, retains its identity through time, even though as circumstances change it says different things. I do so in honor of A. P. D. Mourelatos, who has spent his life studying *logoi*, and encouraging others to do the same. The example of his probing insight, clarity of thought and patient attention to these same sequences of words has done much to teach us how to listen to what they still say.

Certain words, such as 'this,' 'now,' 'me' and 'here,' and many occurrences of verbs in the present tense, can be interpreted only if one considers the context of the sentence of which they are a part. These terms are called 'token-reflexives,' 'indexicals,' 'demonstratives,' or 'egocentric' terms, and the problem of their analysis has come to occupy a central place within the philosophy of language. The problem has important repercussions on fundamental issues concerning what language is and how it serves as a vehicle by which assertions are made about the world.

Within *Dissoi Logoi* (henceforth '*DL*'), a fifth century sophistic text of unknown authorship, we find several puzzles focusing on an odd characteristic found in sentences employing indexicals: the same sentence (such as 'I am now reading a paper') can be both true and false. Aristotle was aware of these puzzles and devised three different ways of solving them. I here examine the puzzles as they are presented in *DL* 4, as well as Aristotle's solutions. Aristotle struggles to account for this kind of change in truth value within the context of his evolving metaphysics of substance. He initially approaches the problem through regarding a *logos* as a kind of self-subsistent entity, and moves to an alternative solution which understands a *logos* as an action that a person performs.

I

The earlier sophists were impressed by the great power that *logoi* have in altering human beliefs and passions. Their investigations into language were largely motivated by the desire to master its power to alter human beliefs and passions.[1] Protagoras' declaration that 'there are two *logoi* concerning everything, these being opposed each to the other' (DK 80 A1)[2] is at its root not a metaphysical thesis,[3] but a proclamation of the great versatility and power of

[1] See Guthrie, 1971, pp. 44–5; Mourelatos, 1985, pp. 607–38.

[2] The translation is from Kerferd, 1981, p. 84.

[3] E. Schiappa, 1991, pp. 90–100 understands the fragment as an expression of support for a Heraclitean metaphysics, but there is no evidence that Protagoras was aware of or influenced by Heraclitus' sophisticated metaphysical and physical accounts. At *Tht.* 152c-e, Socrates suggests that Protagoras is a Heraclitean, but since he makes the same claim in regard to Homer he cannot here be regarded as a

language.[4] A skilled speaker can employ *logos* to achieve either of two opposed effects. If one *logos* is to be used to convince a listener of *p*, there is available another *logos* by which the same listener can be convinced of not-*p*.

Plato tells us of some who thought that they were in possession of an art, ἡ ἀντιλογική, by which such opposed *logoi* are discovered and expressed (*Ly.* 216a, *Phd.* 89d–90c, *Phdr.* 261c–e),[5] and that Protagoras wrote a text[6] which presented a number of such opposed arguments. His students could make use of these tropes when they saw fit, or could employ them as models for devising their own arguments (*Sph.* 232d). This text is lost. But *Dissoi Logoi* also follows this general pattern, for which reason the text has been considered as having been heavily influenced by the teachings of Protagoras.[7] Within *DL* 1–4,[8] the author examines pairs of opposed predicates A and B, first presenting arguments to the effect that 'the A and the B are the same,'[9] and then presenting arguments to the effect that they are different. In order to show that 'the A and the B are the same,' the author presents a number of specific cases in which a certain thing that is A (in some respect, or at some time) is also B (in some other respect, or at some other time).[10] For example, the argument of Chapter 1 that 'the good and the bad are the same' rests on considering the fact that certain food is good for the healthy and bad for the ill.[11]

The locution τὸ A is ambiguous; it can refer either to the thing that is A, or to the attribute of A-ness itself. The author successfully shows that certain things that are A are also things that are B. However, Chapters 1–4 each conclude with arguments to the effect that the A is different

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serious historian of philosophy. But even if Plato's testimony is to be taken seriously, it is not the teaching of the unity of opposites that is attributed to Protagoras, but the thesis that all things are in flux. This quotation pertains to the pragmatics of speech; see Kerferd, p. 84. The teaching concerning the existence of opposed *logoi* may or may not have been intended to support the view that 'people are the measure of all things.' If 'all things' refers to all facts, that is, if Protagorean relativism is absolute, all of the opposed *logoi* that exist in regard to things would be true. For a *logos* to the effect that *p* could convince one that *p*, and the one so convinced would be the measure of its truth. Hence the existence of opposed *logoi* concerning everything would support Protagorean relativism. On the other hand, our evidence concerning this dictum is limited to Plato's *Theaetetus*, and within that dialogue Socrates takes Protagoras to restrict it to certain perceptual or normative features of the world. Whether such a feature as it appears is healthy or not, that is, whether or not having that appearance is advantageous or desirable, is not relative (166d–167d). If we take this to reflect Protagoras' own views (as does Kerferd, 1981, pp. 104–5) not all opposed *logoi* will in fact be true. For opposed to a true *logos* that a certain perception is healthy (with beneficial consequences) will be another asserting that this same perception is not healthy (with detrimental consequences), and this second *logos* will be false.

[4] See Guthrie, 1971, p. 267.

[5] On Plato's conception of antilogic, see Kerferd, 1981, pp. 59–67.

[6] This text is presumably the Ἀντιλογιῶν α β of Diogenes Laertius 9.55.

[7] See Trieber, 1892, pp. 210–48; Gomperz, 1912, pp. 162, 168–71; Guthrie, 1971, pp. 316–17; Robinson, 1979, pp. 54–7.

[8] This line of argument (presented in regard to being and not-being) is also found in *DL* 5.5.

[9] *DL* 4, the focus of this chapter, is a bit of an exception. The opposed predicates that are at 4.1 initially identified as under consideration are 'true' and 'false,' but the author does not examine whether 'the true' is the same as 'the false,' but whether 'the true *logos*' is the same as 'the false *logos*.' But we can consider the opposed predicates under examination as 'being a true *logos*' and 'being a false *logos*'; so considered, this chapter follows the pattern of the previous three.

[10] In *DL* 2, the author does not only adduce certain examples of As that are also Bs. In the case of one pair of opposed predicates A and B (καλός and αἰσχρός) he affirms that *everything* that is A is also B. He does so by exploiting a general principle that lies behind his list of examples of certain actions that are both καλοί and αἰσχροί. The principle is that any action that is καλός when performed at the right time will be αἰσχρός when performed at the wrong time.

[11] A similar list of things that are both good and bad is found in a speech attributed to Protagoras at Plato *Prt.* 334a–c.

from the B, on the grounds that absurd consequences result from taking the two *characteristics* to be identical. Such a *logos* to the effect that 'the A and the B are different' will be opposed to the *logos* 'the A and the B are the same' only if the latter is understood as meaning that the characteristics of being A and B are the same.[12]

The first half of *DL* 4 follows this pattern, arguing that being a true *logos* is the same as being a false *logos* on the grounds that certain *logoi* are both true and false. It begins as follows:

> People put forward opposed *logoi* concerning the true and the false. One of these [*logoi*] asserts that the true and false *logoi* are different things, while another asserts that they are the same. I am among those who put forward the latter [*logos*]. The first reason for this is that [the true and false *logoi*] are said in the same words. Next, whenever a *logos* is uttered, the *logos* is true if things have turned out in accordance with how the *logos* is said, but the same *logos* is false if things have not turned out in this way. For example, [consider a certain *logos* which] accuses someone of being a temple-robber. If the deed was done, the *logos* is true. But if the deed was not done, the *logos* is false. The *logos* of someone defending himself against temple robbery is also [to be understood] in the same way.[13] The law courts, too, judge the same *logos* to be true and false. Consider this. If we are sitting next to each other, and should [at the same time] say [the words] 'I am an initiate,' we would all be saying the same [*logos*], but only I would say a true [*logos*], since I am in fact an initiate. It is clear, then, that when the false is present to [one and the] same *logos*, it is false, and when the true is present to it, it is true. This is similar to how a man is the same, though he is [in turn] a child, a youth, mature, and old.

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[12] Austin, 1986, pp. 116–21 has shown that these arguments of *DL* are possible only if the author employs premises such as 'S is A in some context' and 'drops the qualifiers.' In Austin's view, Protagoras recognizes that the qualifiers are not to be dropped, and is thus able to prevent the identification of contraries *tout court*.

The author of *DL* may wish to extend the reasoning to argue that *all* characteristics (including those not discussed) are identical with their opposites, or perhaps even to argue for the identity of all things and characteristics whatever. In Chapter 5, the author argues that the same things are said and done by the sane and the insane and by the wise and the foolish. To show this, the author adduces the fact that things that are larger also smaller, and likewise in regard to the pairs more/less and lighter/heavier. At 5.3 the author infers *οὕτω γάρ ἐντι ταὐτὰ πάντα*. The sense of *οὕτω* and the referent of *πάντα* are unclear. Sprague, 1972, p. 288, renders 'thus all things are the same,' taking *οὕτω* to mean 'as a matter of consequence' and *πάντα* to refer to all pairs of contraries. On her reading the author is arguing for a kind of Eleatic monism. Such an argument would require premises distant from those stated. On the other hand, Robinson, 1979, p. 127, translates 'for in those respects all objects are the same,' taking *οὕτω* to be specifying the manner in which the contraries are the same and *πάντα* to refer to things characterized by the contraries. One could also take *οὕτω* as does Robinson, and *πάντα* as does Sprague, translating 'for in those respects all characteristics are the same.' This third reading, as well as that of Sprague, imputes to the author a more radical generalization of the instances the author adduces, but has the author making a point more directly supportive of the conclusion that the same things are said and done by the sane and the insane, as well as the wise and the foolish.

Barnes, 1979, pp. 518–22, understands *DL* 1–3 not as primarily concerned with the identity of contraries, but with the relativity of normative terms, and with the limits of moral generalization. No doubt the examples put forward in these chapters can be employed to argue that normative terms are always employed relative to persons affected, cultures, and situations. But this is not the conclusion explicitly argued for, which is the *identity* of opposing normative predicates. See Austin, 1986, p. 120. These arguments seem to be presented not as arguing for a certain meta-ethical thesis, but as tools to be applied in whatever manner the speaker finds useful, whether convincing an audience of a certain point, or refuting one who holds an opposing view.

[13] Sprague, 1972, p. 287 translates *καὶ τῶ ἀπολογουμένω ὥς γε ὁ λόγος* as 'And the same argument is used by a man defending himself against such a charge.' But, even if the recognition of the relativity of truth and falsity could help one devise an effective defense, would a sophist ever go so far as to claim that direct appeals to the relativity of truth and falsity are effective in convincing a jury of the falsity of an accusation?

What constitutes one and the same *logos* is problematic. For this reason, the author begins by laying down criteria for the identity of *logoi*. Two *logoi* are the same if they are composed of the same words (presumably in the same order).[14] What is at issue is whether a certain ordered set of words that constitute a *logos* can be both true and false. The author says that it can. He tells us that whether a given *logos* is true or false depends not on its own identity, as determined by the sequence of words that make it up, but on whether it is in accordance with something else, how things are.[15] Even given the content of the *logos* 'X is a temple-robber,' the sequence of words by which its identity is determined, we may not know whether or not X is, in fact, a temple robber. Truth is rather a relation external to the *logos*, one which the *logos* either does or does not have in relation to the world. The author makes his case by asking us to consider the pragmatics of discourse. How is it that people actually go about determining whether a *logos* is true or false? A criminal defendant knows that his protestations of innocence cannot be evaluated as true or false on account of the words that he uses to testify to his innocence. Rather, evidence must be presented, to the effect that events really did occur as the defendant says they did. Likewise, when a judge or jury is deciding whether protestations of guilt or innocence are true or false, they attend to events, not merely to the contents of the *logoi* uttered.[16]

The author has claimed that truth or falsity is a matter of the relation of the *logos* to a changing world. One might respond that at any given time, the world is unambiguously such as it is, and hence *at that time* a single *logos* has only one truth value, for it either does or does not correspond to how things are in the world at that time. The next several lines can be taken to be a response to this suggestion. The author insists that, even synchronically, there will be cases in which a true *logos* is also false. One such case is that of a number of people simultaneously[17] saying the words

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[14] Cf. Pseudo-Aristotle *MXG* 6 980b1–5, in which Gorgias is reported to have argued that one person cannot through *logos* communicate to another what the first has seen, for *logoi* which are spoken are sounds, and hence cannot convey what is seen. See Mansfeld, 1985, p. 254: '[I]n order to receive the knowledge which A tries to impart B should now see what A has seen. It is true that B hears what A tells him, his ears hearing the sounds, but he cannot hear the colours, that is cannot *hear* what B has *seen*. A, the speaker (*ὁ λέγων*), speaks, but what he speaks – his *logos* – cannot be seen because it is neither colour nor thing.' Here too the *logos* is identified with the words making it up, where these words are understood as assemblages of phonetic content.

[15] This marks a decisive divergence from the thought of Protagoras, for whom the true *logos* is not necessarily the one that corresponds to how things are, but the one that corresponds to how things appear. See Levi, 1940, p. 297.

[16] Compare roughly the same point made by Gorgias *Pal.* 35: 'If then, by means of words (*logoi*), it were possible for the truth of actions to become free from doubt [and] clear to hearers, judgement would now be easy from what has been said. But since this is not the case, protect my body, wait for a longer while, and make your decision with truth.' (tr. G. Kennedy, in Sprague, 1972, p. 62). On this, see Kerferd, 1981, p. 81. Long, 1984, p. 327 remarks on the irony of this passage: Palamades employs his *logos* to argue for his innocence, by appealing to the fact that *logoi* cannot prove innocence or guilt. (Likewise, the author of *DL* employs his *logos* to argue that one cannot determine the truth of a matter on the basis of any *logos*.) As Robinson, 1979, p. 191 points out, another parallel is Plato *Tht.* 201b7–c7, in which Socrates points out that true belief concerning a defendant's innocence or guilt need not be knowledge, for it can come about through the clever *logoi* of the sophist, in the absence of the appropriate evidence. Oddly, Theaetetus' suggestion is that it is precisely a *logos* that is required for the defendant's *logos* to be known to be true. Plato is here toying with the ambiguity of the term '*logos*,' an ambiguity that is at the center of the remainder of the dialogue.

[17] I follow Robinson, 1979, p. 192 in so understanding *αἰ λέγοιμεν*; this brings into sharper focus the main philosophical point being made in this line. Since the *logoi* are said simultaneously, either they all correspond to the world or they all do not. The author may have another point in mind, as well. A chorus of voices speaking in unison has a kind of phenomenological unity; it *sounds* as though just one *logos* is being uttered. But even this single *logos* can be shown to be both true and false, if only some of those uttering it are in fact initiates.

'I am an initiate.' On the assumption that the identity of a *logos* is determined by the words making it up, all of these people are saying the same *logos*. There is one *logos*, and things do not change at the time the *logos* is spoken; yet this same *logos* is both true and false.

The author then tells us 'It is clear, then, that when the false is present to [one and the] same *logos*, it is false, and when the true is present to it, it is true.' The inferential particle ὦν shows that this is presented as a generalization of the examples illustrating how the same *logos* could be true and false. Presumably, during the diachronic change of truth value, there is a time at which the true is present, and another time at which it is not. This is analogous to how the same man, through the course of time, is at various stages of maturation. When the real and pretended initiates utter the same words, the true and the false are somehow simultaneously present to one and the same *logos*.

The author has here successfully disentangled the ambiguities of the τὸ A locution. If a true or false *logos* is said to be true or false by virtue of the presence of 'the true' or 'the false,' 'the true' and 'the false' refer not to the true and false *logoi*, but to the characteristics of truth and falsity themselves. The author is explicitly drawing attention to the distinction between a thing and the characteristic that 'is present to it' (παρῇ). A thing, whether man or *logos*, can take on opposing characteristics, each of which is either present to the thing or not.

This very distinction is at the core of the response made by Socrates, in Plato's *Parmenides*, concerning how the units of a multitude can be both like and unlike. Zeno argues that if there is a multitude, the members of such a multitude are both like and unlike; hence, on the supposition of plurality, the like is the unlike (127e). The structure of this argument is parallel to the arguments for the identity of opposites found in the first four chapters of *DL*. Socrates responds to it by pointing out that the characteristics themselves, or Forms, do not admit of their opposites; the things that participate in them do (128e–130a).[18] In outline, at least, this is consonant with what the middle dialogues have to say concerning how sensible things have certain characteristics predicated of them. At *Phaedo* 100d5, Plato calls the relation between a thing and its Form παρουσία, cognate to παρῇ at *DL* 4.5.[19] For this reason, this passage of the *DL* is recognized as important evidence for determining the history of the development of Platonic metaphysics, for if, as is commonly accepted,[20] the author of the *DL* is a contemporary of Socrates, the passage suggests that Plato himself is not the source for some of the key conceptual resources employed within the metaphysical theory of Forms.[21]

This historical question does not concern me here. But I note that within the *Parmenides*, Socrates employs the distinction between a Form and that to which the Form stands in the

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[18] I accept the understanding of Zeno's paradox of likeness and unlikeness, and its Socratic solution, presented in Allen, 1983, pp. 67–91. ' … Zeno's paradox follows from a primitive nominalism that identifies meaning and naming in such a way that the *meaning* of a term is identified with the subject it is *true of.* Plurality implies that the same things must be both like and unlike; if the same things are both like and unlike, the opposites likeness and unlikeness are identical; this is impossible; therefore, there is no plurality … Socrates, with the theory of Ideas, corrects the guilty assumption by distinguishing characteristics from things characterized. Zeno's paradox, then, is a special case applied to opposites of a more general failure to distinguish characters from things characterized' (p. 79). On my interpretation of the *DL*, all of the puzzles of the first halves of Chapters 1–4 are of this kind.

[19] Also, at *Euthd.* 301a, when Dionysodorus asks Socrates whether beautiful things were the same as 'the beautiful,' Socrates responds that they were different, insofar as to each beautiful thing πάρεστιν κάλλος τι, to which Dionysodorus responds that, by this logic, when Socrates comes in the presence of an ox, he is an ox (Ἔανοῦν παραγένηταί σοι βοῦς, βοῦς εἶ). This indicates that Socrates employs παρουσία with a metaphysical, metaphorical sense, by which the term denotes the participation of a particular in a characteristic or Form, however this relation is to be construed. On this, see Sprague, 1967, pp. 91–8.

[20] See Diels-Kranz, 1964, p. 405, n. 1; Taylor, 1911, reprinted 1987; Guthrie, 1971, p. 316; Robinson, 1979, pp. 34–41.

[21] Kranz, 1937, pp. 225–6; Taylor, 1911, pp. 109–110; Robinson, 1979, pp. 192–3.

relation of παρουσία, in order to show how the fact that a certain object is both A and B (the contrary of A) does not mean that the character A is the character B, or vice versa, and such an argument would be effective against the strategy by which contraries are identified in the first four chapters of *DL*. Indeed, we shall see that this is precisely the strategy employed by Aristotle in his first attempt to deal with the puzzle of *DL* 4. Here, however, the analysis of predication as παρουσία is not employed to show *how* a *logos* can stand in the relation of παρουσία to both a characteristic (truth) and its contrary (falsity). Rather, the author uses it to convince us only *that* a single *logos* is both true and false.

These puzzles concerning truth and falsity are followed by an opposed *logos*, which points to absurd results that follow from denying that being a true *logos* is in fact something different from that of being a false *logos*. The opponent of the relativism of truth must find the flaw in the first set of puzzles.

II

As is the case for many sophistic puzzles, one almost immediately recognizes that a fallacy is afoot; but it is difficult to diagnose exactly what the fallacy is. Most of us would at least initially be inclined to approach the puzzle in the following manner. We would agree with the author of the *DL* in taking truth and falsity to be characteristics of certain linguistic entities (*logoi* or propositions or sentences). But we would deny the premise that the identity of this linguistic entity is wholly determined by the words in the sentence that express it. A Greek might put the point by saying that 'I am an initiate' is a different *logos*, when spoken by different people. This is inadequate for resolving the fallacy, until there is an account of what a *logos* is, and of how it is to be individuated.

A number of figures in twentieth century philosophy of language have offered such an account. Frege posited the sense of a sentence as a nonlinguistic entity, in principle epistemologically accessible to members of a linguistic community. This sense is to be identified with the thought, the object of the activity of thinking. Frege considers how two sentences employing different temporal or spatial indexicals have the same sense, that is, express the same thought.

> … [T]he time of utterance is part of the expression of the thought. If someone wants to express today what he expressed yesterday using the word 'today,' he will replace this word with 'yesterday.' Although the thought is the same its verbal expression must be different in order that the change of sense which would be otherwise be effected by the differing times of utterance may be canceled out. The case is the same with words like 'here' and 'there.'[22]

Russell and Ayer are two philosophers of language who employed the Fregean strategy. Russell, at the earliest phase of his career, posited a certain sort of entity called a 'proposition,' which is what is asserted by a sentence, a linguistic entity. A proposition is itself nonlinguistic (except when the sentence is about language itself).[23] The puzzle of 'I am an initiate' would be solved by realizing that in each case 'I' is a different 'term.'[24] Likewise, much later, A. J. Ayer

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[22] Frege, 1984, p. 384. Frege takes the thought expressed by a sentence employing the indexical 'I' to be untranslatable into a sentence free of indexicals, since the thought corresponding to 'I' is unique to the speaker (pp. 358–60).

[23] Russell, 1903, p. 47, 'A proposition, unless it happens to be linguistic, does not itself contain words; it contains the entities indicated by words.' See also pp. 48–9.

[24] Russell himself did not fully discuss the question of 'egocentric expressions' until *An Inquiry into Meaning and Truth* (Russell, 1940). By the time of the writing of this work he had long since rejected

distinguished between situations and occasions. Occasions are possible or actual particular occurrences. Situations, unlike occasions are repeatable. Two occasions exemplify the same situation if they resemble each other in the appropriate way.[25] The reference of indexicals is determined by the situation of the speaker,[26] but in principle the same occasions can be described without their use.[27] If two speakers are to both say 'I am an initiate' they will be describing the same situation, but different occasions. Because one occasion is actual and the other is not, the statement of one speaker is true, and the statement of the other is false.[28]

Such a solution is not put forward by the author of *Dissoi Logoi*. More surprisingly, it does not seem to have occurred to Aristotle,[29] who seems to have found the puzzle especially perplexing. As usual, Aristotle is at his most interesting when dealing with a problem whose solution threatens to be beyond his grasp.

III

Aristotle accepted the Platonic distinction between things and their characteristics. When Plato identified characteristics, or Forms, as *ousiai* he was led to assign a derivative ontological standing to the subjects that participate in these characteristics. Such things are what merely participate in the Forms. This move ultimately results in an indeterminate, unknowable Receptacle as ultimate substrate.[30] A major ontological innovation of the *Categories* was to grant maximal ontological standing to the subjects of characteristics. It is these subjects, not the characteristics to which they stand in relation, that are the *ousiai*. So that they might avoid the fate of Plato's ultimate substrate, substances are granted certain characteristics that those substances *are*, their essences.[31] An object can take on either of the contraries A and B as long as the essence of the object, what it *is*, neither includes nor entails A or B. At *SE* 22, 178b24–9, Aristotle employs this strategy to show that truth and falsity are not the same.

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this view of propositions as extralinguistic entities, and had taken a behavioristic line in approaching the question of how two different sentences can have the same significance (pp. 175–84). The problem of egocentric expressions is rather approached on the basis of a fundamental distinction between what a declarative sentence asserts and what it expresses. A sentence 'states' or 'indicates' a fact, a feature of the world. It also expresses the internal state of the speaker, be it belief, emotion, or other psychological state (pp. 19, 194–202). The fact asserted by a sentence employing an egocentric expression can always be asserted without the use of such expression, and would be most perspicaciously asserted in this way. This would prevent two facts being asserted by the same sentence (such as 'I am an initiate'). The egocentric expression has a part to play in what a sentence *expresses*: it points to a certain causal relationship (internal to the speaker) between the fact indicated and the speaking of the sentence that indicates the fact (pp. 102–9). Russell takes asserting (or 'indicating') and expressing, along with the attempt to alter the behavior of others, as distinct *purposes* played by a sentence (p. 194). He is here moving towards the realization that the problem of indexicals is best approached by taking the speaking of a sentence to involve more than the brute assertion of a fact; to understand the speaking of a sentence, one needs to take account of the speaker and what he or she intends to do by speaking.

[25] Ayer, 1954, pp. 8–9.

[26] Ayer, 1954, pp. 12–13, 186–7.

[27] Ayer, 1954, pp. 16–17, 187.

[28] Ayer goes on to argue that occasions are ontologically otiose; we can consider the world as made up of situations alone. He would argue that theoretically one can give an account of why one statement is true and the other is false by appealing only to situations. But this does not have bearing on the present issue.

[29] On the fact that Aristotle does not share the Russellian aversion to 'occasion sentences,' see Hintikka, 1967, pp. 1–14.

[30] On the Receptacle as a 'form-bare particular' see McPherran, 1988, pp. 527–53.

[31] I accept the account of the ontology of the *Categories* that is developed in Code, 1986, pp. 411–39.

The context is an account of how certain fallacious arguments can be refuted by showing that certain terms are being used in more than one way (a special case of which is homonymy; 178a24–5, cf. Cat. 1a1–6). Aristotle's diagnoses of the fallacies share the following form. The argument in question employs two premises, each of which contains the problematic term. Each premise is true, if the term is taken in one manner, but is false if taken otherwise. The puzzles are resolved by showing that, if it is to be interpreted in the manner that renders each premise true, each premise employs the term differently from how it is used in the other.

SE 22 is devoted to analyzing cases in which terms are used in more than one way, on account of their being used in respect to more than one of the categories (178a5–6). As in the closely related *Topics*, Aristotle moves freely from considering the categories as a classification of kinds of predication and a classification of kinds of things.[32] When classifying predicates, the first category is the *ti esti*, or essence. When classifying things, the first category is *tode* or *tode ti*. To employ a term as predicating the essence of a subject is to use the term in a manner fundamentally different from using it to predicate of a subject something that is not its essence.

Aristotle makes use of this categorial distinction in addressing the puzzle of how the same *logos* can be both true and false:

> Further, the following are among these kinds of arguments: 'Did someone write what is written? But now it is written that you are sitting, a false *logos*. But it was true when it was written. Therefore what is written is both false and true.' For 'being a true or false *logos*' or 'being a true or false belief,' signifies not a 'this' but a 'such.' (*τὸ γὰρ ψευδῆ ἢ ἀληθῆ λόγον ἢ δόξαν εἶναι οὐ τόδε ἀλλὰ τοιόνδε σημαίνει.*) The same point can also be made in regard to belief. (*SE* 22, 178b24–9)

Although there is no clear evidence that Aristotle knew the *Dissoi Logoi* itself, this passage shows that he is aware of the sophistic puzzles concerning truth and falsity that are propounded in the first half of *DL* 4. Like the *logos*[33] 'X is a temple-robber,' the *logos* 'you are sitting' changes in truth value as circumstances change. Aristotle accepts that it is in fact one and the same particular *logos* that persists through time. The change in truth value is to be explained like any other variety of nonsubstantial change.[34] A thing, a *tode*, retains its identity even as it accepts in turn contrary characteristics. For example, a body is a *tode*, and becomes both hot and cold because neither of these temperatures is a *tode*; they are rather qualities. In the case at hand, the *tode* is the *logos*, and the contrary characteristics that it can either take on or lose are truth and falsity.[35] Change in truth value has the same ontological structure as change in

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[32] See Ackrill, 1963, pp. 78–9; Smith, 1997, pp. 74–6.

[33] Aristotle tells us that the puzzle that arises in the case of *logos* can also be raised in the case of belief, and it is to be solved in the same way. In regard to the present passage, the two cases are indeed parallel, and I restrict myself to the case of *logos*.

[34] Crivelli, 1999, pp. 37–42 presents a convincing argument that it is the particular utterance, and not something like a sentence-type that is the subject of truth or falsity.

[35] The interpretation that I present is that of Waitz, 1846, p. 1. Tricot, 1950, pp. 100–1 n. 2, claims to be following Waitz, but presents a different interpretation, according to which the written entity that is false is not the same one which, when written, was true. The interpretation is not grounded in the text; Aristotle does not show any indication that he denies that the *logos* 'Socrates is sitting' maintains its identity. On these problems with Tricot's account, see L. Dorion, 1995, pp. 356–7. Dorion, too, claims to follow Waitz, but presents a complex interpretation that is also not grounded in the text. According to Dorion, *τοιόνδε* here refers not to a quality of a substance (as it normally does) but to a *state-of-affairs*. He takes Aristotle's point to be that truth and falsehood inhere in states-of-affairs, not substances, and that it is therefore states-of-affairs to which the principle of noncontradiction applies. A substance can admit contraries, but a state-of-affairs cannot. Hence a *logos* that signifies a state-of-affairs is not at the same time true *and* false. The same *logos* is at one time true and at another time false, but this does not involve a violation of the principle of noncontradiction. 'Contrairement à ce qui était le cas pour la

temperature. Aristotle's response to the puzzle is parallel to Socrates' response to Zeno: the fact that a thing (the *logos*) is such as can admit of contrary attributes (true and false) does not mean that the attributes themselves are to be identified.

IV

Within the *Categories*, we see the first item in the categorial classification of things (what is called a *tode* in the *SE*, and an *ousia* in *Top.* 1.9.103b28) identified with the ultimate substrate of things which underlies change in regard to contrary characteristics. Within this same work Aristotle denies that *logoi* are substances. (Aristotle's reasons for this must be surmised from *Int.* 4, 16b26,[36] in which a *logos* is defined as a kind of *φωνὴ σημαντική*; a *φωνή* is a certain means by which animals impart motion to air.[37] It is something that someone or something *does*, and, as such, is in the category of *ποιεῖν*.) The solution of the puzzle of *DL* 4 will not stand if a *logos* is not taken to be a true *tode*. Aristotle is compelled to return to the puzzle of *DL* 4.

He does so in *Categories* 5. After having asserted that substances alone are such as to retain their identity through an exchange of contraries, he presents change in truth value as a possible counter-instance:

> Such a characteristic appears to be found among none of the other kinds of thing, unless someone were to object that *logos* and belief have this characteristic. This is because the same *logos* is apparently both true and false. For example, if the *logos* 'X sits' were true, once X stands up, the same *logos* will be false. The situation is similar in the case of belief. For if someone were to truly believe that X is sitting, then should X stand up, he will believe this falsely, even though he has the same belief about this same matter. But even if someone were to grant that this is so, nonetheless there is a difference in how this is so. In the case of substances it is the changing things themselves that can admit contraries. For let us say that there was a change when something became cold from being hot (since it underwent qualitative alteration), and when it became dark from being pale, and when it became good, from being bad. Likewise in the other cases, a particular thing can admit contraries, since it itself admits change. But *logos* and belief remain entirely immobile in every respect, and one or another contrary comes to be applied to them because the situation (*πρᾶγμα*) is changing. For the *logos* that X sits remains the same, but it comes to be true at one time and false at another on account of a change in the situation. This is how things stand in the case of belief, as well. So it would follow that substance is unique in being able to admit contraries on account of a change in the thing itself. (4a21–b4)

Aristotle still agrees with the author of *DL* 4 that a *logos* like 'X sits' remains the same *logos* even when said at different times.[38] So at this juncture it appears that a *logos* does remain the same

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substance, un seul et même état de fait ne peut faire en sorte qu'un jugement soit à la fois vrai et faux; celui-ci ne pourra en effect être que vrai *ou* faux' (Dorion, 1995, pp. 356–7). This interpretation has several weaknesses. First, it has the aporia rest on the notion that a *logos* signifies the substance, such as Socrates, that is its subject. But Aristotle does not say that the problem comes from taking a *logos* to signify a substance; rather it is said to come from taking the phrases 'being a true *logos*' or 'being a false *logos*' (*τὸ ψευδῆ ἢ ἀληθῆ λόγον εἶναι*) as referring to a substance. Further, Dorion must give an unorthodox sense to *τοιόνδε*.

[36] Within the *Categories* 'man' and 'ox' are presented as examples of substances, but nowhere in the *Categories* does Aristotle give a clear test for determining which things are substances and which are not.

[37] See *DA* II.8, 420b11–14: *ἀέρος κίνησίς τίς ἐστιν ψόφος … φωνὴ δ' ἐστὶ ζῴου ψόφος, καὶ οὐ τῷ τυχόντι μορίῳ.*

[38] Simplicius, 1907, p. 118.15–25 remarks that we have here an instance in which the two *logoi* ('X sits' spoken earlier and 'X sits' spoken later) are the same not in number but in *eidos* alone. However, he

while admitting contrary predicates; this is not something of which only substances are capable. Nevertheless, here, in his second approach to the issue of change in truth value, he denies that the *logos* changes in truth value. He denies this, not because the *logos* does not persist, but because having different truth values at different times is, properly speaking, not a case of change at all. In such a case, it is the world, not the *logos*, that is changing. Elsewhere in the *Categories* Aristotle tells us that a state-of-affairs (τὸ πρᾶγμα) in the world is prior to the truth of a *logos* that expresses this state-of-affairs, for the latter is the αἴτιος of the former (*Cat.* 12, 14b18–20; cf. *Metaph.* IX.10, 1051b6–9).[39] It stands to reason that a change in how things are could result in a change in truth value, since the *logos* would either gain or lose the relation of correspondence with reality. (Cf. *Ph.* V.2, 225b11–13; *Metaph.* XI.12, 1068a11–13, according to which there is no change in regard to relations, for the relation could at one time hold and at another not hold, even though one of the terms of the relation does not change.) On this analysis change in truth value is an example of what, following Geach, has come to be known as a Cambridge change.[40] For such a case satisfies Russell's criteria for change (which is to have incompatible predicates predicated of a single subject at different times[41]) but nonetheless it seems counterintuitive to understand the

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does not account for the lack of numerical identity by pointing to the use of indexicals. Rather, he indicates that a *logos* is an evanescent action, not a persistent substrate, like an *ousia*. 'For a *logos* is among the things that are moving through a process (κατὰ διέξοδον), and this is why it is not among the things that have a settled place (θέσις). It follows that the *logos* that was previously said (the true one) comes to be the same in *eidos* as the second (the false one), but it is not the same in number, as is said to be the case for *ousia*' (ll. 21–4). Simplicius does not say whether the feature that is responsible for the sameness of form is sameness in wording, meaning, or something else. See also Ackrill, 1963, pp. 90–1: 'Aristotle might have argued that the alleged counter-examples, individual statements or belief which change their truth value, fail, because my statement now that Callias is sitting and my statement later that Callias is sitting are not the same *individual* statement even if they are the *same statement* (just as 'a' and 'a' are two individual instances of the same letter). Thus they are not examples of the very same individual admitting contraries. Alternatively, Aristotle could have denied that the statement made by 'Callias is sitting' when uttered at one time *is* the *same statement* as that made by 'Callias is sitting' when uttered at another time. The sameness of a statement or belief is not guaranteed by the sameness of the words in which it is expressed; the time and place of utterance and other contextual features must be taken into account.' Ackrill's first point is similar to that of Simplicius, although, unlike Simplicius, he provides no ontological account of a *logos* that explains *why* we are to deny the existence of a single *logos* as persistent substrate. His second point seems to follow from a Fregean understanding of indexicals.

[39] On the priority of being to truth, see Williams, 1991, pp. 305–12.

[40] Geach, 1969, pp. 66, 71–2. Other examples of Aristotle's recognition of the distinction between Cambridge change and true change are discussed in Williams, 1989, pp. 41–57. On Aristotle's diagnosis of change in truth value as a Cambridge change, see Williams, 1991, p. 307 and Crivelli, pp. 45–54. Dexippus takes this diagnosis to be the core of Aristotle's response (Dexippus, 1885, p. 60.1–23; Dillon, 1990, p. 109). He compares a change in respect to truth value to A's change in respect to being to the right or left of B, on account of the motion of B, not A. Simplicius' account of the puzzle to which Aristotle is responding is nearly identical in wording to that of Dexippus; he is copying either from Dexippus or from a common source (Dillon, 1990, pp. 108–9). He too thinks that the problem of change in truth value is to be solved by showing that this sort of change, like change in respect to being to the right or left, does not involve change in the *logos* itself (Dillon, 1990, p. 119). Unlike Dexippus, he analyzes change in truth value as a mere Cambridge change in order to interpret 4b4–18, in which Aristotle presents an alternative solution to the puzzle by noting that *logoi* do not admit contraries at all. Simplicius takes this to mean that *logoi* do not admit contraries in the right manner, namely, in the manner of πάσχειν, for that which undergoes a mere Cambridge change is not subject to πάσχειν. In my view, the analysis of change in truth value as a mere Cambridge change is at the bottom of Aristotle's first solution to the puzzle in *Categories* 5 (4a28–b5), to the effect that the *logoi* do not change at all. While Simplicius takes Aristotle's first solution to rest on the fact that *logoi* are not persisting substrates at all, I take this to be rather the crux of the second solution.

[41] Russell, 1903, p. 443.

subject as undergoing change, since this subject maintains its character or position, even as it maintains different relations to an object which is itself a true subject of the change at issue. It is not at all clear how to precisely formulate the distinction between what is and is not the subject of the true change; nor is it clear whether the Aristotle of the *Categories* has the resources for solving the problem. An Aristotlean response to the problem of Cambridge changes would need to appeal to Aristotle's own definition of change, as a certain actualization of a potentiality (which definition would have been at hand at the time of the writing of *Ph.* V.2, 225b11–13 and *Metaph.* XI.10, 1068a11–13, cited above). Perhaps he would argue that a thing is a true subject of change if it is the real ontological substrate for the potentiality whose actualization constitutes the change. But the distinction between actuality and potentiality is absent from the *Categories*.

Immediately following the above passage, Aristotle offers a third solution, perhaps because he is aware that there are important theoretical gaps in the solution that he has just proposed.

> These things are so, provided that one really does accept that belief and *logos* are such as to admit contraries. But this is not the truth. For *logos* and belief are not said to be able to admit contraries by virtue of admitting anything themselves, but by virtue of something having happened to something else. For a *logos* is said to be true or false by virtue of the fact that something happened to something else, not by virtue of the fact that it itself can admit contraries. For strictly speaking, no *logos* or belief is changed by anything. So, since nothing happens in them, they do not admit of contraries. But substance is said to be able to admit contraries, on account of the fact that it itself admits contraries. For a substance admits disease and health, and both a pale and a dark complexion, and it is said to admit contraries because it itself can admit each of the things of this kind. So being such as can admit contraries while it is the same thing, something one in number, is [a characteristic] unique to substance. (4b4–18)

Just before this, Aristotle had retreated from the thesis that only substances remain the same while admitting contrary predicates. The puzzle of *DL* 4 forced Aristotle to instead advocate the weaker thesis: that only substances remain the same while admitting contrary predicates, through a change that is not a Cambridge change. But here Aristotle indicates that such a retreat is not necessary. Rather he tells us that the sorts of examples brought up in the aporia are not counterexamples to the stronger thesis, since a *logos* does not in fact admit contraries at all. How is it that Aristotle denies that the *logos* admits contraries, even as he affirms that the same *logos* is both true and false? No real answer is provided by the reason given by Aristotle for denying that, properly speaking, *logoi* admit contraries. The stated reason is that *logoi* do not *themselves change*; change in the truth value is resultant from the change in the things with which the *logos* is concerned. But this is precisely the point that Aristotle has already made in support of the weaker thesis that substances alone accept contraries through a change that is not a Cambridge change. Now, however, he is using this point to support the thesis that a *logos* does not admit contraries at all.

Perhaps Aristotle is advocating a new sense of 'admit' (ἐνδέχεσθαι), according to which S admits C if and only if S can itself *change* from not being C to being C, or vice versa. On this account, the thesis that only substances can remain one in number while accepting contraries is in essence the thesis that only substances themselves change. But *why* can only substances change? The answer is that only substances are an enduring substrate for those nonsubstantial characteristics of things that come and go. If a substance S has characteristics C and D, and D is replaced by its contrary E, while C remains, one cannot properly say that C is changing, accepting both of the contraries D and E. Perhaps by the time of the writing of *Physics* III Aristotle could explain why in such a case C is not itself changing, by appealing to the definition of change: C, as inherent in S, does not have the potentiality for either D or E. But, barring such an account, the best that Aristotle can do is to assert without argument that what is most accurately said to change is that which serves as the ontological substrate for the contraries being exchanged. Only the substrate can be properly said to *accept* contraries. This analysis

holds whether or not S changes from being D to E (or vice versa) by means of a mere Cambridge change. The question is not one of the aetiology of change, but of its ontological structure. Whether or not the exchange of contraries is a Cambridge change, what admits the contraries is their substrate.

The point that Aristotle is making follows from the preceding sections of the *Categories*. In the first five chapters of this work Aristotle develops a complex ontology, by which he clarifies the synchronic relations that hold among various kinds of beings at any given time. According to this scheme, primary substances are the true subjects of predication, since other things exist only insofar as are 'said of' or 'are in' these substances. It follows that sentences whose subjects do not refer to substances, such as 'the color is bright' and 'the walk was brisk' are not expressed in a logically perspicuous manner, insofar as the structure of linguistic predication is not in accordance with the ontological structure of things. For example, 'the color is bright' is more properly expressed as 'substance A is brightly colored.' 'Bright' is simply a determination of the quality (color) that inheres in the substance. Properly speaking, the color is not the subject for the brightness; we could say that the color does not admit the contraries 'bright' and 'dark.' Likewise, 'the walk was brisk' is more clearly rephrased as 'she was walking briskly.' Again, the adverb 'briskly' is not predicated of 'walked,' which is in the category of action. Actions, properly speaking, do not admit contraries, for they are not true subjects. Even though one who begins by walking briskly, and then walks slowly, is not engaged in a mere Cambridge change. Nevertheless, the walking itself does not a 'admit' the contraries 'brisk' and 'slow.'

Aristotle's solution to the problem of change in truth value in *logos* and belief is therefore to be interpreted as to the effect that neither a *logos* nor a belief is a substance, a true substrate, and hence is not the sort of thing that truly changes. This makes good sense of the Greek text, grants to Aristotle a cogent philosophical response to the problem under consideration, is consonant with Aristotle's explicit denial that *logoi* and beliefs are substances, and rests on the ontological work done in the immediately preceding pages.

What the *Categories* does not make clear is what Aristotle takes the ontological status of *logoi* and beliefs to be. Here my argument must be a bit speculative. *Logoi* and beliefs must needs stand in intimate relation to the activities of speaking (λέγειν) and believing (δοξάζειν). If they are independently standing objects of such activities there must be a place for them within Aristotelian ontology. Since there is not, they must be identified with the activities themselves. Thus, as we have seen *Int.* 4 understands *logos* as a variety of φωνή, and φωνή is a certain kind of noise (*DA* II.8, 420b6), distinguished by its conveyance of meaning (*Pol.* I.1, 1253a10–15). Likewise, at *APo.* II.19, 100b5–7, belief (δόξα) is taken to be a *hexis* concerned with dianoia. That is to say, the ability to have beliefs is an ability to engage in a certain kind of thinking. It stands to reason that a belief itself is a variety or aspect of the mental activity of thinking (διανοεῖν) in a certain way.[42] As Simplicius recognizes, it is precisely because *logoi* are actions that they have no permanence and cannot properly be said to persist through time. According to Simplicius, it is for this reason that one cannot strictly speaking say that it is the very same *logos* that is both true and false.[43]

Accordingly, truth and falsehood do not inhere in *logoi*. Rather, speaking truly and speaking falsely are contrary actions, and these actions inhere in human beings. In speaking truly, one is engaged in the action of speaking things as they are. In speaking falsely, one is engaged in the action of speaking of things as they are not. Strictly speaking, one and the same act of speech

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[42] I therefore disagree with Williams, 1991, p. 311 who writes, 'Aristotle might have been content to talk of a statement (λόγος) which was not said by a particular person, but he would have been unhappy with the idea of a belief (δόξα) which was not what some person or persons believed.' I see no reason why statements and beliefs should not have parallel ontological analyses.

[43] Simplicius, 1907, p. 118.21–25.

cannot change from being true to being false. However, a speaker can change from speaking truly to speaking falsely.[44]

The following example would be structurally parallel to change in truth value, as Aristotle understands it. Imagine a pair of contraries 'sky-matching' and 'not-sky-matching,' which are applicable to a color, depending on whether or not that color matches the color of the sky. As the sky turns from blue to black, an individual shade of blue passes from 'sky-matching' to 'not-sky-matching.' This does not occur by virtue of any change in the color, for two reasons. First, the change is a mere Cambridge change. It is properly analyzed as resultant from a true change in something else, the sky. Second, in order to distinguish a real change from a mere Cambridge change, we are led to an ontological analysis, which tells us that the colors do not themselves receive contraries; the substances in which the colors inhere do. Accordingly, it is impossible for the same color to persist, in turn admitting the contrary characteristics of 'sky-matching' and 'not-sky-matching.' This is not because it is not the case that the same color is at different times both sky-matching and not-sky-matching, for this is in fact the case. Nor is it because change from being 'sky-matching' to 'not-sky-matching' is a mere Cambridge change (though this is in fact the case). Rather, it is because, strictly speaking, colors 'admit' no predicates at all, since they are not true subjects. Likewise, from an Aristotelian perspective, it is in the last analysis an error to think of *logoi* (even considered as actions inherent in speaking substances) as the bearers of truth value. Truth and falsity are not predicates at all. Rather, it is the speaking subject that can bear the predicates 'speaking truly' and 'speaking falsely.'

There are of course severe and longstanding problems in interpreting what a particular shade of blue *is*, for Aristotle. Is it a universal taken at the highest level of specificity, or some sort of irreproducible particular? This same issue emerges for particular actions, such as *logoi*. Is a particular *logos* an action spoken by a particular person at a particular time, or is it the most specific *kind* of act of speech? I note in passing that if Aristotle thought that the *logos* 'X sits' was one particular non-substance, when spoken at one time, and is another particular non-substance, spoken at another time, it would be very easy for Aristotle to solve the puzzle of how a single *logos* can admit contrary truth values. He could have simply pointed out that we have two *logoi*, not one. The fact that he does understand the same *logos* as *somehow* persistent provides some support for Owen's view that the individual non-substances of the *Categories* are universals,[45] for a particular act of speech is temporally localized, and does not persist once it has been uttered.

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Leaving aside this ontological issue, we summarize: Aristotle's considered view is that when a *logos* that employs indexicals changes in truth value, this is not to be explained by noting that such change is a mere Cambridge change. Rather, we must say that, strictly speaking, the *logos* does not change at all, for it does not admit contraries, which, I argue, means that it is not the true ontological substrate for truth and falsity. It is clear that Aristotle is here considering 'X

[44] Such an analysis holds whether the nonsubstantial attribute or action said to be changing is taken to be a particular or universal. Cf. Owen, 1986, p. 257, in which Owen imagines an objection to his view that the color that is inherent in A is a universal, the same as the color in B: '[S]omeone might point out that A's colour (or size, or whatever) can change without any change in B's, however … all that is said is that A can change colour, that from having one determinate colour it can come to have another.' Also cf. Matthews and Cohen, 1968, p. 651: 'For the color of Felix to undergo change is nothing more nor less than for Felix to undergo a change in color – to be, say, now light grey and later dark grey, or now white and later black.'

[45] Owen, 1986, pp. 252–8.

sits' as the same (at least in *eidos*, as Simplicius puts it[46]) when spoken both before and after. Because a *logos* is defined as a φωνὴ σημαντική, he must hold the view that there is identity of both phonetic and semantic content. He is continuing to pursue his analysis on a path other than that of the Fregean solution, according to which, in spite of identity in wording, there is differing semantic content of the two *logoi* employing temporal indexicals, when spoken before and when spoken after.

We may, however, ask the following. Beyond verbal identity, exactly how *are* the two *logoi* identical? I offer the following considerations.

For Aristotle, a φωνὴ σημαντική is a communicative act, something someone does. Thus, whether I am speaking at 3 pm or at 10, when I say 'Socrates is sitting' I am *doing* the same thing, namely, affirming that the *hexis* of sitting inheres in the substance Socrates.[47] The point can be extended in regard to the other sort of example employed in *DL* 4. Two people who say 'I am an initiate' are engaged in the same variety of communicative act, that is, they both affirm their status as initiates. Both are engaged in the action of signifying their thought, and both are thinking the same thing, their own affirmation of being an initiate.[48]

Aristotle is clear that *logoi*, φωναὶ σημαντικαί, comprehend more than declarative sentences. Prayers, for example are also σημαντικαί, even though they do not admit a truth value (*Int.* 4 17a3–4). Language, for Aristotle, is a human activity, something that people *do* within the complex web of human relations (cf. *Pol.* I.2, 1253a9–18). A *logos* is a human action; so too are the components of a *logos*, including indexical expressions. Keeping this in mind, we can better understand why Aristotle is not driven to reinterpret indexical expressions as either names or definite descriptions, and does not solve the problem of change in truth value by translating the *logoi* into other *logoi* free of indexicals. He would be in sympathy with the remarks of Wittgenstein:

> One has been tempted to say that 'now' is the name of an instant of time, and this, of course, would be like saying that 'here' is the name of a place, 'this' the name of a thing, and 'I' the name of a man. . . . But nothing is more unlike than the use of the word 'this' and the use of a proper name – I mean the *games* played with these words, not the phrases in which they are used.[49]

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[46] See n. 38.

[47] It is worth keeping in mind here that Aristotle nowhere grants to any instant, present or otherwise, any existence apart from the actions that occur within it. Since time is a number of motion, the instant, which is that which bounds time (*Ph.* IV.1, 219a28), is determined by certain limits of actions, not vice versa. Accordingly, to understand a predication in the present tense as involving an implicit indexical temporal qualifier reverses the order of conceptual priority that Aristotle takes to hold. Aristotle would understand any use of the present tense (that is not an instance of what Owen calls the 'timeless present'; see Owen, 1986, pp. 27–44) as a kind of indexical, but not as pointing to one of a number of instants ordered in a B-series. The issue of Aristotle's understanding of the present tense is too complex to begin to discuss here; see Waterlow, 1983, pp. 104–28.

[48] See Hintikka, 1967, p. 3: 'Aristotle would apparently have accepted the doctrine that the sentence "It is raining" is made true or false by different sets of facts accordingly as it is uttered today or yesterday. However, he would not have been worried about the consequence that one and the same sentence may be true at one time and false at another. He would have rejected the notion of a proposition and would have stuck instead to the actual thought of the people who uttered the sentence on the two occasions. When doing so, he would have been willing to argue that the thought expressed by the sentence today and yesterday is one and the same.' See also Hintikka, 1967, pp. 10–11: '[T]he idea that spoken words are symbols for unspoken thoughts encourages the idea that one and the same temporally indefinite form of words expresses one and the same belief or opinion at the different times when it is uttered.' I agree with Hintikka on this, except that I believe the sequence of alternative solutions to the sophistic puzzle of change in truth value shows that Aristotle was indeed quite worried by the consequence that one and the same *logos* is both true and false.

[49] Wittgenstein, 1969, pp. 108–9.

Indexicals are not alternative names, but are linguistic entities of another kind, by which one engages in the *activity* of *pointing* to a place, thing, or time. Wittgenstein's insight here has been very fruitful within the second half of the current century. Many now understand the use of indexicals as underlying the determination of the reference of terms and names within ordinary discourse. As Kaplan writes, 'If pointing can be taken as a form of describing, why not take describing as a form of pointing?'[50] Such pointing cannot be understood as equivalent to an alternative mode of referring to that which is pointed at, which mode of referring does not employ indexicals; rather it is to be understood only *as* a kind of pointing. (One can point to different things in different ways; the kind of pointing that is at work in the use of a particular indexical is called its 'character' by Kaplan,[51] and 'its role' by Perry.[52]) Such a semantic strategy presupposes a Wittgensteinian understanding of language as like a 'game,' involving moves such as pointing, which are basic to the use of language and are not to be eliminated through translating the sentences employing indexicals into propositions that do not. To point (to one's position, time, or self, or that of another) is to be understood as something that people *do*; as Aristotle would put it, it is in the category of action.[53] And it is an action of a kind different from naming or describing.

Aristotle is up to much the same thing when he takes a *logos* such as 'I am an initiate' or 'X is sitting' to retain its identity, when spoken by different people at different times. He has not isolated and analyzed the use of the indexical, and hence has not become clear on what makes the use of an indexical different in kind from the use of any other term. But the problem of change in truth value in *logoi* employing indexicals is to be solved by pointing to a feature that such *logoi* have in common with *all logoi*: they are actions, and hence are not the sort of being that can be a substrate for any kind of change. Aristotle solves the issue of change of truth value by showing that when two utterances of a certain *logos* do the same work (that is, they have the same 'character' or 'role'), they are in a sense the same; yet even when such *logoi* do the same work, they may well have different truth values.

DL 4 presents the first evidence of philosophical reflection on the problem of indexicals. The author of the *DL* shows that he understands that the puzzle arises from the fact that, from the point of view of a logical analysis of language, multiple occurences of the same indexical term (such as 'I' or 'am sitting') are to be considered as fundamentally the same, an insight that agrees with much recent work on the nature of indexical expressions. Aristotle struggled with the implications that the puzzles of *DL* 4 raise for the principle of noncontradiction. The Fregean solution, according to which multiple occurences of the sentences employing the same indexical term express something different (be it 'thought' or 'proposition') never occurred to him. After two abortive attempts at dealing with the issue, he finally employed the ontology developed within the *Categories* to show that parallel uses of the same indexical term are *actions* of the same kind, performed by people within different contexts. For Aristotle, the principle of noncontradiction is to be applied, not to propositions (a kind of thing for which there is no room in his ontology) but only to individual acts of declarative speech. The same speaker cannot at the same time, in the same respect, speak both truly falsely.

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[50] Kaplan, 1990, p. 24.

[51] Kaplan, 1990, pp. 37–8.

[52] Perry, 1990, pp. 66–8; and 1993, pp. 21–3, 72–5.

[53] I would hesitate to employ the term 'speech act' for this sort of action, since this term is usually used in respect to whole communications such as sentences, or groups of sentences (what Aristotle would call *logoi*), not their parts. For Aristotle the parts of *logoi*, namely nouns or verbs, are also significant (*Int.* 2, 16a19, b26). To say even a word as part of a longer *logos* is in itself an instance of the human activity of speech.

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Chapter 18

Archytas and the Sophists

Carl Huffman

We are used to thinking of Archytas of Tarentum in connection with Plato. After all, it was Archytas who, according to the *Seventh Letter* (350a), sent a trireme to rescue Plato from danger at the court of Dionysius II of Syracuse in 361. He is also the master mathematician, famed for his elegant solution to the problem of the duplication of the cube (DK A 14). Indeed, Gregory Vlastos paints him as the major influence leading to a marked increase in the role of mathematics in Platonic thought after Plato's first visit to Magna Graecia in the early 380s (1991, p. 129). But what has this Archytas to do with the Sophists? If one scans the indices of the standard works on the Sophists, the name Archytas almost never appears. The same is true for all other members of the Pythagorean school.[1] Of course Plato is recognized as a major, if problematic, source for our knowledge of the Sophists, and his responses to innovations in moral and political thought made by some of the sophists and others in the late fifth century are central to the development of his moral philosophy. It is less commonly known that there is evidence that Archytas too confronted some of these same trends in late fifth- and early fourth-century thought. In particular there is evidence that he met head-on the glorification of *pleonexia*, the desire to have more than others, which figures prominently in Plato's portrayal of Callicles in the *Gorgias* and Thrasymachus in the *Republic* and that he also responded to the unmitigated hedonism which can be associated with this *pleonexia*.

My goal in this chapter will be two-fold. First, I will show that the evidence for Archytas' connection to trends in sophistic thought, consisting of two testimonia and one fragment, is not to be rejected as derived from later forgeries based on the Platonic material, as has sometimes been suggested. It is more likely to reflect Archytas' own response to similar issues. Second, I will show that the particular version of the 'sophistic' challenge which Archytas answers as well as the content of his answer are unduly neglected pieces of evidence for the debate surrounding this sophistic thought pattern.[2] The issue of authenticity is closely intertwined with the analysis of the content of the texts, so that, in what follows, these two issues will be treated together. On *a priori* grounds it would seem quite plausible that the Pythagoreans, who from the time of *autos* had been central players in the politics of southern Italy, should have been concerned with the currents in late fifth-century thought which challenged traditional moral and political views. This plausibility is heightened even more in the case of Archytas who is the most successful of all Pythagorean political figures, having been elected *strategos* of Tarentum seven consecutive times (DK A 1). But, plausibility aside, what is the evidence that Archytas had anything to do with the Sophists?

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[1] Kerferd, 1981, has two incidental references to the Pythagoreans and no mention of Archytas. In over 300 pages on the sophists Guthrie, 1969, mentions Pythagoras once (p. 28) in discussing the early use of the word *sophistês* and Herodotus' application of it to Pythagoras. He also has a passing reference to Archytas B 3 (p. 151).

[2] I use expressions such as 'sophistic thought pattern' as a convenient way to refer to ideas that are assigned to certain prominent sophists. I by no means wish to suggest that the sophists were a school of thought or that the pattern belongs to all or even most sophists.

Testimonium A 9 in the section on Archytas in DK is derived from the twelfth book of Athenaeus' *Deipnosophistae* (*Sophists at Dinner*), a work which was composed at the end of the second century AD. Athenaeus tells us that he is, in turn, drawing on what 'Aristoxenus the writer on music says in his *Life of Archytas*' (545a). Book 12 of Athenaeus is devoted to 'those who have become notorious for their luxury' (509d). The fragment of Aristoxenus, thus, focuses not on Archytas but on a certain Polyarchus who was sent by Dionysius the Younger, tyrant of Syracuse, as an ambassador to Tarentum. We are told that this Polyarchus had acquired the colorful nickname *ho hêdupathês* (literally 'the one who experiences pleasure,' or 'the high-liver'). Aristoxenus says that he acquired this nickname 'since he was a man most serious about bodily pleasures not only in his actions but also in his discourse.'[3] Nevertheless, he is described as not altogether a stranger to philosophy but as in fact an acquaintance of Archytas, with whom and with whose followers he discoursed during this visit to Tarentum. It is important to note that Polyarchus is not himself described as a sophist. His being an ambassador would, of course, not rule out his also being a sophist, but there is no hint that he pursues the sophistic practice of teaching, either for pay or otherwise. The description of him as an acquaintance of Archytas and as 'not altogether a stranger to philosophy' suggests that the discussion of moral issues was another pleasure he enjoyed but that it was just an occasional activity for him and had nothing to do with his profession. In fact he appears to be a figure analogous to Plato's Callicles, in not being a sophist himself but rather an aristocrat who has taken to heart some aspects of sophistic teaching. What then does he have to say?

We are told that when the topic of appetites and bodily pleasures came up among Archytas and his friends, Polyarchus gave a long speech in their defence. This speech, which constitutes the bulk of the fragment of Aristoxenus' *Life of Archytas*, is full of distinctions common to sophistic texts of the late fifth century. Particularly prominent is the contrast between nature (*phusis*) and convention (*nomos*) to the detriment of convention. There is also praise for the pursuit of pleasure and in general for trying to get more than others (*pleonexia*). His main point is that 'nature, whenever it speaks in its own voice, commands us to follow pleasures, and says that this is the mark of an intelligent man' (lines 10–12) and he cites as evidence that, whenever men acquire absolute power, 'they are carried towards bodily pleasures and think that this is the goal of their power' (14–16). There follows a long discussion of the Persian kings as the primary example of this (17–42). At the end of his speech he points out that, in contrast to this call of nature, '… lawgivers, wishing to reduce the human race to one level and that no individual citizen live in luxury, have caused the class of virtues to pop up' (42–4). A little later he says that 'the lawgivers were at war with the clan of those who wanted more than their share' (*tôi tês pleonexias genei*, 46–7). They, therefore, deified justice and gave 'the name of greed (*pleonexian*) to any preeminence in enjoyment, so that one who was obedient to the laws and the voice of the multitude was said to be moderate in bodily pleasures' (54–5). This is the end of the quotation in Athenaeus, but surely in Aristoxenus' *Life*, Archytas next gave his response to Polyarchus. Otherwise, why would the story of Polyarchus appear in the *Life of Archytas*? For Athenaeus, whose topic is 'those who have become notorious for their luxury,' Archytas' answer is irrelevant.

Fortunately it appears that the response is preserved in a passage of Cicero's *De Senectute* (12.39–41) where Archytas gives a speech attacking pleasure. Both DK and Wehrli, in his

[3] There seems to be no other example of an individual receiving the epithet *ho hêdupathês*. However, the noun *hêdupatheia* is not uncommon and was used as the title of a work by Polyarchus' fellow Sicilian, Archestratus of Gela (cf. Athenaeus 1.4e), in the middle of the fourth century BC, which is very close in date to the supposed meeting of Archytas and Polyarchus. Archestratus' work is in hexameters and is described as a 'culinary tour of the mediterranean' (OCD). The noun appears even earlier in Xenophon (*Cyr.* 7.5.74) who also uses the related verb (*Sym.* 4.41.2). The adjective *hêdupathês* appears in the comic writer Antiphanes (Fr. 91 = Athenaeus 526d), who was active in the first half of the fourth century.

collection of the fragments of Aristoxenus (p. 65), assume that Cicero is drawing on Aristoxenus. However, Cicero does not identify the source of this speech of Archytas or why Archytas gave it and there is no mention of Polyarchus. Indeed, Powell in his fine recent commentary on the *De Senectute* argues that 'it is no more than a guess' that this passage comes from Aristoxenus' *Life of Archytas* (1988, p. 183). However, there are very good reasons to think that Powell is understating the case here and it seems very likely that what Cicero gives us does indeed come from Aristoxenus. Granted that Aristoxenus must have presented a speech by Archytas on pleasure, it is far simpler to assume that Cicero is drawing on this speech than to arbitrarily assume that he is using an otherwise unattested second speech on the same topic. Moreover, there are two features internal to the speech of Archytas given by Cicero that connect it to the speech that Aristoxenus must have assigned to Archytas. First, it is significant that it is precisely in the form of a speech that both Aristoxenus and Cicero present Archytas' ideas on pleasure, rather than making any reference to a written treatise. Second, Archytas' speech in Cicero is specifically an attack on pleasures of the body (*voluptatem corporis*, 39), not an attack on the body in general (including its fears and imaginings) such as is found, for example, in Plato's *Phaedo* (66c) or a discussion of other sorts of pleasures. But it is precisely the case for bodily pleasures that Polyarchus is making in Aristoxenus (σωματικὰς ἡδονάς 545c, 546a, 546c; see also 545a).

Moreover, there is external evidence that suggests, although it does not prove, that Cicero had access to Aristoxenus' works including the *Life of Archytas*. No less than eight passages from Cicero are listed in Wehrli's collection of the fragments and testimonia of Aristoxenus.[4] In addition, Cicero seems to have had considerable information about the life of Archytas. He quotes two further anecdotes about him (*Laelius* 88, *Tusc*. 4.78) and is as willing to talk of the life of Archytas as the life of Plato (*Tusc*. 5.64). Most significantly, one of these anecdotes, the story of Archytas' refusal to punish his servants when angry (*Tusc*. 4.78), comes precisely from Aristoxenus' *Life of Archytas* (Fr. 49 in Wehrli), although Cicero does not so identify it.[5] Thus, Cicero shows strong interest in the life of Archytas, implies that he has considerable knowledge of it and uses material that we know was in Aristoxenus' *Life*. It is also striking that Cicero is not the only figure in the middle and second half of the first century BC in Rome who mentions Archytas. There in fact appears to be a renaissance of interest in him. He appears both in Horace's famous ode (1.28) and in Propertius (4.1). Burkert has argued that this may represent a conscious attempt by first century Romans to claim Pythagoreanism, as embodied in the figure of Archytas, as a native 'Italian' philosophy (1961). But where did they get their information about Archytas? Since we know of no other life of Archytas in antiquity, it is surely tempting to suppose that Aristoxenus' *Life of Archytas* played a major role here. Suetonius, writing at the beginning of the second century AD, regarded Aristoxenus as the foremost

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[4] Frr. 3, 4, 69a, 69b, 118, 119, 120a, 120b. These eight do not include Archytas' speech on pleasure, which Wehrli (1945) regards as derived from Aristoxenus but oddly does not quote, because he thinks that Cicero only followed the original in general outlines (p. 65). Cicero mentions Aristoxenus as a great teacher and musician and also for his views on the soul (*Att*. 8.4.1; *De or.* 3.33.132; *Fin.* 5.18.49 *Tusc*. 1.22.51, 1.11.24, 1.10.19, 1.18.41). While we do not have direct evidence for Cicero's having read treatises by Aristoxenus, we have explicit evidence that Cicero read treatises by Dicaearchus (*Att.* 13.32 – Dicaearchus' *Letter to Aristoxenus* is mentioned), who was the contemporary of Aristoxenus and fellow member of the Lyceum. Thus we have evidence that Cicero had access to works of the provenance of the fourth-century Peripatetic school.

[5] One final piece of evidence connecting Cicero to Aristoxenus is that, in Cicero's famous debunking of the connection between Numa and Pythagoras at *Rep*. XV, he relies on the tradition that Pythagoras came to Southern Italy in 532 and it is Aristoxenus who seems to be the source of this dating in the tradition (fr. 16). However, this information must have come from Aristoxenus' *Life of Pythagoras* rather than the *Life of Archytas*.

biographer of the Greeks.[6] Thus, while certainty is impossible, both internal and external evidence suggests that Archytas' speech attacking pleasure in the *De Senectute* is based on Aristoxenus.

Before turning to more detailed analysis of both Archytas' and Polyarchus' speech, it is necessary to confront the problems presented by Aristoxenus' *Life of Archytas* as a source. From a certain point of view, Aristoxenus should be an excellent source for Archytas. He was born in Archytas' home town of Tarentum around 370 BC and, while he was probably a child during the years when Archytas was most likely to have been the chief political figure (between 367 and 361), Aristoxenus' father Spintharus is mentioned in anecdotes about Archytas and clearly served as a source of information (Iamb. *VP* 197). Aristoxenus himself seems to have begun his philosophical career as a Pythagorean, although his master was one Xenophilus in Athens. He later joined Aristotle's Lyceum and was disappointed when Theophrastus became its head upon Aristotle's death rather than himself.[7] Among his numerous writings are four lives, all of philosophers (Pythagoras, Socrates, Plato and Archytas) and all surviving only in fragments. A number of other Peripatetics showed themselves interested in using anecdotes to illustrate virtues and vices. However, Momigliano (1971, pp. 73 ff) has argued that Aristoxenus is the first undisputed biographer in the Peripatetic tradition.[8] All of this is quite encouraging about the value of any evidence deriving from Aristoxenus' *Life of Archytas*, but there are problems. There is evidence, for instance, that he took rather partisan stances in the lives and was hostile to both Plato and Socrates. Thus, he is famous for claiming that Plato's *Republic* was almost wholly contained in the *Antilogika* of Protagoras (Fr. 67 Wehrli = D. L. 3.37) and that Socrates was prone to rages in which he held back from no word or deed, was also excessively fond of sex, and in fact had two wives (Fr. 54). On the other hand, he is generally more favorably, some would say too favorably, disposed to Pythagoras and Archytas.

However, apart from any personal or philosophical prejudices that Aristoxenus brings to his writing, there is the broader question of the nature of the genre to which these lives belong and how this should influence our interpretation of the evidence they provide. This problem is particularly acute in the case of speeches such as those of Polyarchus and Archytas. At one extreme we might suppose that they are the total invention of Aristoxenus with no basis in the historical tradition and simply serve to create the picture of Archytas that he wants to promulgate. In this case the *Life of Archytas* might have some of the traits of Plato's presentation of Socrates and his interlocutors in the dialogues. As Charles Kahn has recently argued these are works 'of the imagination designed to give the impression of actual events, like a good historical novel' (1996, p. 35). On the other hand, a life is not a philosophical dialogue and we might expect it to have a different set of conventions and expectations with regard to historical accuracy. As Momigliano (1971, p. 56) points out 'the borderline between fiction and reality was thinner in biography than ordinary historiography' but biography *is* on the borderline: there is fiction but there is also historical reality to take into account. The problem is that we simply have too little of any of the lives written by Aristoxenus to be sure of what the conventions were. Indeed, these speeches by Polyarchus and Archytas are the only speeches from the lives that have been preserved. We have no independent grounds for determining what Aristoxenus had in mind when he presented them. However, I would make the following tentative suggestions. Aristoxenus must have had a wealth of information about Archytas, deriving from his own recollections and those of his father and others in Tarentum. It therefore seems to me unlikely that, in a work that professed to be a Life of Archytas, he would invent out of whole cloth a figure like Polyarchus.

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[6] The report comes from the *De viris illustribus* (praefatio) of St Jerome, who is generally regarded as relying on Suetonius. See Momigliano, 1971, p. 73, and Wehrli 1945, p. 10.

[7] The evidence for Aristoxenus' life is collected in Wehrli, 1945, Fr. 1–9.

[8] For other judgments on Aristoxenus as a biographer see Leo, 1901, p. 102, Dihle, 1970, p. 70, and Wehrli, 1945.

It is much more probable that he is drawing on an oral tradition. In light of the gossip that Aristoxenus retails about Socrates and Plato, we should remember that such an oral tradition itself may involve invention. It might not create a Polyarchus and his reputation for the pursuit of pleasure out of the air but it might invent or considerably embellish a meeting between Archytas and Polyarchus. If we are optimistic about Aristoxenus' technique, we might suppose that he tried to get the story from several different sources. He then could have followed something like Thucydides' notorious procedure of trying to keep as close as possible to these sources, while at the same time constructing what he thought each figure ought to have actually said (*Thuc.* 1.22; see Gomme, 1945, and Hornblower, 1987). Thus, an optimistic, but I think not implausible, reading of Aristoxenus' evidence would be that he is reporting on an actual meeting between Archytas and Polyarchus or, if the meeting is constructed, at least that the main points that are assigned to each figure are the main points that the oral tradition assigned them. The actual wording and structuring of the speeches of course belongs to Aristoxenus himself. However, it will emerge below that it is also possible that Aristoxenus used some writings of Archytas in constructing the words he puts into his mouth.

Let us now turn back to a close examination of Polyarchus' speech and its connections to Plato's presentation of similar issues. Polyarchus starts with a condemnation of the traditional system of virtues as 'far removed from what is natural' (8–10). He will return to these unnatural virtues and their origin at the end of his speech, but the bulk of his speech concentrates on what nature calls for when she 'speaks in her own voice,' that is, the pursuit of bodily pleasures. We might think that Polyarchus meant that the study of the natural world as a whole suggests that pleasure is the proper goal, but the next line refers specifically to 'the composition of human nature.' Polyarchus introduces a slightly paradoxical twist by emphasizing that the pursuit of such pleasures is in fact the mark of the sensible (*νοῦν ἔχοντος*) and prudent (*ἔμφρων*) as well as the happy man, of the man who understands the composition of human nature. He is asking us to picture not a crazed voluptuary but rather someone who determines by reason that the pursuit of pleasure is the proper course in human life and who can pursue pleasure as part of a rational plan. On the other hand, the idea of a hedonistic calculus such as we find in Plato's *Protagoras* does not seem to be present. Nonetheless, Polyarchus' emphasis on the rational pursuit of pleasure is important, since Archytas' response attacks the possibility of just such a life of pleasure.

At line 14 Polyarchus turns to the argument for his assertion that nature calls on us to pursue pleasure. The central point is that all men, once they gain any remarkable power, are borne toward the bodily pleasures and think that the pursuit of such pleasure is the goal of their power. There are two slightly different strands to this argument. First, Polyarchus is asserting that, once humans get sufficient power, they are naturally impelled toward bodily pleasures. This is a sort of 'is' to 'ought' argument. However, at the same time the point is made that people who get such power also judge (*νομίζειν*) that the pursuit of bodily pleasure is the goal, so that once again Polyarchus emphasizes that the pursuit of pleasure is a rational choice. The kings of the Lydians, Medes, and Assyrians are all cited as evidence, but it is the Persian king that is the primary example in the following passage. The thesis that pleasure is the central goal is then supported by the fact that no sort of pleasure was left unexplored and that the Persians even offered rewards for the discovery of new pleasures. The devising of ever new forms of pleasure would seem to be another area in which reason plays a role in Polyarchus' ideal life. This in turn leads to what appears to be a subsidiary point about pleasure, namely that human nature becomes quickly sated with the same pleasure and that novelty has great power to increase pleasure. Polyarchus then lists the ways in which this search for novelty has led to the elaboration of pleasures through the creation of new kinds of food, incense, perfume, clothing, rugs, and other furnishings. Aristoxenus then, in an apparent fit of modesty, merely reports that Polyarchus went on to describe the sexual practices of the Persian King, before giving the final judgment that the Persian King was the happiest man of the day and that the tyrant of his own

city of Syracuse was a distant second. As further evidence that such a life of pleasure is that for which men fight, he cites the risks undertaken by the Medes to take over the Assyrian empire, and by the Persians to take over the empire of the Medes in turn. In a sort of ring-composition, Polyarchus ends by asserting that the reason for all these conquests is the enjoyment of bodily pleasure (42).

At this point Polyarchus concludes by returning to the unnatural virtues that he mentioned at the beginning of his speech. They are stated to be the creation of lawgivers who wanted to keep all humanity at one level and allow no one to live in luxury. Such leveling in life-style is thought to be necessary to preserve political community (*koinônia*). As a result of their attempts at leveling, the lawgivers are at war with all attempts to gain more than one's share (*pleonexia*) and therefore introduce and literally deify justice. Polyarchus then adds that 'after this temperance and self-control joined the revel' thus paradoxically suggesting that it is virtues such as these that are the out-of-control revelers rather than the pleasures. The lawgivers then give the name 'greedy' to anyone who is exceptional in their enjoyments. However, moderation in bodily pleasures is in reality only obedience to custom (*tois nomois*) and to the voice of the masses.

Some important problems would appear to arise when we look at this speech of Polyarchus with a critical eye. A number of his central themes sound remarkably similar to what Callicles says to Socrates in Plato's *Gorgias* and to a lesser extent to what Thrasymachus says in Book 1 of the *Republic*.[9] Callicles in the *Gorgias* (483d) appeals to what 'nature herself reveals' just as

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[9] There has been considerable controversy about the nature of the position that Plato assigns to Thrasymachus in Book 1 of the *Republic* and its relations to the position of Callicles in the *Gorgias*. Questions have been raised about whether Thrasymachus' position is consistent, whether it shows Thrasymachus to be an important or a confused thinker, and the relationship of that position to the thought of the historical Thrasymachus as revealed in the fragments preserved under his name. Obviously it is impossible for me to go into these issues in their full complexity here or to deal with all of the considerable scholarship in detail (see Nicholson, 1974, for a full bibliography up to his time). I would make the following points:

1 I am convinced by Nicholson's (1974) support of Kerferd's (1947, 1981) view, that Thrasymachus does not state his full position until his long speech at 343b-344a. That this is his true position is supported, as Nicholson points out, by the fact that it is given in his favored form of presentation, *makrologia*. Hence, Thrasymachus' definition of conventional justice is 'another's good' (343c). His initial formulation of justice as 'the advantage of the stronger (= the ruler)' was simply a provocative example of this more general thesis. Annas, 1981 has a similar view except that she sees Thrasymachus as initially confused and as led to the clearer statement of his thesis at 343c by Socrates' questioning.

2 Thrasymachus' speech at 343b-344a makes clear that he thinks that the best life is the life in which one disregards conventional justice and adopts a policy of *pleonexia*, which involves getting as much as possible for oneself of money, property, power and so on. His ideal is the man who is able to overreach on a large scale (344a; see Reeve, 1988, pp. 15, 35, and Chappel, 1993, pp. 12–13). Thrasymachus identifies this man with the unjust man and argues that injustice on a sufficiently large scale is a stronger, freer, and more masterful thing than justice (344c).

3 Thrasymachus himself does not make the clear distinction between natural and conventional justice which Callicles does in the *Gorgias* and which allows Callicles to claim, in turn, that *pleonexia* is in fact a virtue by nature. Nor can Thrasymachus bring himself to call justice a 'vice' and he calls it 'noble simplicity' instead (348c). This has led a number of scholars to conclude that Thrasymachus is not quite as extreme as Callicles in that he is arguing neither that *pleonexia* is a virtue nor that we have moral (as opposed to prudential) grounds for pursuing it. Callicles argues that it is right for the strong man to take as much as he can, while Thrasymachus just observes that this is what usually happens (Guthrie, 1969; Grote, 1888, ch. 67; White, 1995, p. 321). The most extreme version of this viewpoint is that of Guthrie (p. 97), supported by White (1995, p. 308; de Romilly's view, 1992, is also similar to Guthrie's but with some variation), according to which Thrasymachus is a disillusioned idealist who is in fact in favor of justice but who is a realist about how the just man actually fares in the world. This accords with

Polyarchus talks of what 'nature commands, when she speaks in her own voice.' Both regard the good life as directed at pleasure and both say that it is only the laws and not nature that fight against having more than one's share (*pleonexia*, *Grg*. 483c). Just as Thrasymachus regards acting justly as simply yielding to the will of those who have political power, as another's good (*R*. 343c), so Polyarchus says that the ones who are called moderate in bodily pleasures are just those who are obedient to the laws and the voice of the multitude. At this point we must remember that the Pythagorean tradition is full of pseudepigrapha whose central characteristic is the attempt to assign features of Platonic and Aristotelian philosophy back to the early Pythagoreans.[10] In light of this tendency of the later Pythagorean tradition to claim Platonic ideas for itself and indeed of Aristoxenus to question Plato's originality, we might well suppose that Aristoxenus has constructed the Polyarchus anecdote to show Archytas outdoing Plato at his own game. He might be seen as saying, 'You have all read Plato's account of Socrates' confrontation with Callicles and Thrasymachus; well in reality these Platonic passages are

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one fragment preserved under Thrasymachus' name (B 8: 'The gods do not see what goes on among men. If they did, they would not neglect the greatest of human goods, namely justice, yet we see men making no use of it') and White develops an interesting case that other testimonia and fragments show Thrasymachus to be 'consistently opposed to exploitation of the weak by superior forces' (p. 324). However, I see little support for such interpretations in Plato's presentation. Plato's Thrasymachus, while choosing to call justice simple-mindedness rather than actual vice, says nothing positive about justice let alone that it is 'the greatest of human goods.' Moreover, his praise for injustice is unmistakable. In addition to his clear support for the pursuit of *pleonexia* in his speech at 343b–344a, Plato makes very clear at 348e that Thrasymachus is not adopting the view that injustice is profitable but nonetheless vicious and disgraceful (which would seem to be the disillusioned idealist position), but rather the stiffer proposition that injustice is not just profitable but also honorable, strong and in the category of virtue and wisdom (349a). This is not just description of injustice but evaluation of it, and Thrasymachus does not say that this is other people's evaluation but ascribes the value-laden terms, 'honorable' and 'virtue' to injustice himself.

Guthrie's position is in fact not completely clear. At one point he says that Thrasymachus has become so disillusioned as to become an ethical nihilist (p. 96). Other scholars follow a similar path in distinguishing Thrasymachus from Callicles. Since Thrasymachus only recognizes conventional justice but does not think that this is a virtue, he evidently thinks that there is no such thing as moral obligation and that we should often ignore conventional justice to pursue our own self-interest (Irwin, 1977; Taylor, 1926).

4 The passage at 348e–349a seems to me to show that Plato is portraying Thrasymachus as going beyond mere description of the state of things (where Chappell and White argue that he stops) and beyond the simple denial that conventional justice is a virtue (Irwin, Taylor) to saying that conventional injustice is in fact a virtue that we thus have moral grounds to pursue. At 349a he clearly assigns it to the class of virtue. Moreover, it is important to note that when Glaucon restates Thrasymachus' position in Book II he does make the explicit distinction between nature and convention that Callicles does in the *Gorgias*. At 359a-b the nature of justice is said to lie in convention, a compact neither to wrong or be wronged. But at 359c he talks of 'the *pleonexia* that every creature by its nature pursues as a good, while by convention (*nomôi*) it is forcibly diverted to paying attention to equality.' From the beginning of Book II (357a) it is made clear that Glaucon and Adeimantus are picking up Thrasymachus' case so that Plato is clearly signaling that what follows is to be taken as a restatement of Thrasymachus' position (Taylor, 1926, oddly takes Glaucon to be combining Callicles' and Thrasymachus' position; but Plato gives no hint that Glaucon is making any substantive addition to Thrasymachus' position). Thus, I agree with those who see Thrasymachus' position as very close to that of Callicles (Annas, Kerferd; Chappell says that Thrasymachus' position might be reconcilable with Callicles', Reeve does not take a stand on this but his view suggests considerable similarity between the two positions). There are of course differences in emphasis given the different contexts of the two dialogues: Callicles focuses on the pursuit of pleasure that is not emphasized in the portrayal of Thrasymachus while Thrasymachus focuses more on the sphere of political power. What they share is the view that the good life for a human being consists in getting as much as possible (*pleonexia*) of material goods such as money, property, and power.

[10] See Huffman, 1993, pp. 17–35; Burkert, 1972, 1971 and 1961; Thesleff, 1971 and 1961.

ultimately derived from Polyarchus' meeting with Archytas.' Thus Wehrli asserts that Aristoxenus is relying mostly on the *Gorgias* and that 'Plato is again plundered for the glory of the Pythagoreans' (p. 64). This is indeed the standard interpretation of the Polyarchus passage so far as I can tell, but in fact most scholars don't even mention it, including Dodds in his great commentary on the *Gorgias*.[11]

Nonetheless, I have become convinced that Wehrli's interpretation cannot be right. To begin with, Aristoxenus explicitly asserts that Polyarchus was an ambassador of Dionysius the Younger. Since Dionysius the Younger only became tyrant in 367, some twenty years after the accepted date of composition of Plato's *Gorgias*, Aristoxenus has made a rather serious chronological blunder, if we assume that he is trying to convince his readers that Archytas had anticipated Plato.[12] Moreover, while Polyarchus' speech certainly shows similarities to what Callicles and Thrasymachus say, in so far as he talks of what nature herself demands, praises *pleonexia*, and attacks *nomos*, such views are part of a more general pattern of thought in the late fifth century and can also be found in a number of other texts including Thucydides, Aristophanes' *Clouds* and Antiphon.[13] What is conspicuously lacking in Polyarchus' speech are the specific trademarks of Plato's Thrasymachus and Callicles. Polyarchus does not call justice 'the advantage of the stronger' or 'another's good' as Thrasymachus does. Indeed justice, although present, is not the central focus at all. Similarly Polyarchus says nothing of the superior man that is so important to Callicles' view (483c) and who has often been compared with Nietzsche's superman. The contrast between the better and stronger man (*βελτίονός τε καὶ κρείττονος*) and the worse and weaker man (*χειρόνων τε καὶ ἡττόνων* – *Grg.* 484c, and so on) simply is not to be found in Polyarchus' speech. Yet, if Aristoxenus were using the *Gorgias* and *Republic* I as his models, it is just such central terms that we would expect to appear. On the other hand, there are original and striking features of the language of the Polyarchus passage. Into this class fall Polyarchus' epithet *ho hêdupathês* and the description of the lawgivers as trying to 'level' society (*homalizein* – line 42, *homalês* – line 46) neither of which finds any parallel in Plato.[14] So I would suggest

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[11] Heinimann, 1945, p. 145 n. 68, is one of the few scholars to pay any attention to the connection between Polyarchus and Callicles. He suggests that Plato and Aristoxenus are drawing on a common sophistic source. He also notes the similarity between Polyarchus' speech and the defence of pleasure found in Heraclides of Pontus' *Περὶ ἡδονῆς* (*Athen.* 12.512 ff). However, the argument in Heraclides, though appealing to the example of tyrants and kings, is based on the idea that pleasures make men's natures more 'great-souled' (*μεγαλόψυχοι*), an idea that is not paralleled in what Polyarchus says. Gosling and Taylor, 1982, p. 345 dismiss most of the early fourth-century work on pleasure among Academics and Peripatetics without discussion as providing 'no evidence of any development in the theoretical treatment of the topic.' It is not clear whether they include the encounter between Polyarchus and Archytas in this group or not, since they make no specific mention of it.

[12] For the dating of the *Gorgias* see Kahn, 1996, p. 52, and Dodds, 1959, pp. 26 ff.

[13] Thucydides 1.76 refers to human nature (*ἀνθρωπείου τρόπου*) and states the established law *τὸν ἥσσω ὑπὸ τοῦ δυνατωτέρου κατείργεσθαι*. This latter formulation is as close to Plato's *Gorgias* as anything found in Polyarchus' speech. Again in the Melian Dialogue (5.105) there is talk of a 'necessary law of nature to rule wherever one can' (*ὑπὸ φύσεως ἀναγκαίας, οὗ ἂν κρατῇ, ἄρχειν*) and the claim that the Athenians did not invent this law (*nomon*) but found it already existing. In Aristophanes' *Clouds*, the Unjust Argument says that he was the first to argue against laws (1039–40), attacks *sôphrosunê* as producing no good (1061), and contrasts these conventional goods with the necessary goods of nature such as sexual pleasure (1075). Further attacks on *nomos* follow at 1400 ff. The contrast between law and nature is also famously developed in Antiphon B 44A.

[14] Neither the adjective *hêdupathês* nor the noun *hêdupatheia* appear in Plato, although they are paralleled in the fourth century (see note 2). Similarly, neither the verb *homalos* nor the adjective *homalês* appears in the *Gorgias* or the *Republic*. *homalês*, *homalos*, and *homalunô* do appear in late Plato, exclusively in the *Timaeus*, *Critias* and *Laws*, but even here the usages do not parallel Polyarchus' 'leveling' lawgivers.

that Polyarchus' speech, while indeed the creation of Aristoxenus to a large degree, is not a pale reflection of Plato but rather deserves to take its place alongside Plato's *Gorgias* and the speeches of Thucydides as a powerful and unique portrayal of an important sophistic thought pattern.

This conclusion gets further support when we turn to Archytas' answer to Polyarchus. The standard pseudo-Pythagorean text, attempting to glorify Pythagoreans at Plato's expense, would assign to Archytas key features of Plato's response to Callicles and Thrasymachus. We might, for example, expect to find mention of the tripartite soul and the conception of justice as each part doing its own thing that we find in Book IV of the *Republic*, or, indeed, the claim of the *Gorgias* (508a) that such views as that of Callicles neglect the power of 'geometric equality,' a claim that is regularly thought to be based on a Pythagorean source. But this is not what we find in the speech of Archytas in Cicero.

The speech shows several connections to themes raised by Polyarchus, and its structure is relatively clear.[15] It begins with a succinct statement of the dangers of bodily pleasure: it causes us to act blindly and without restraint (*temere et effrenate*). Two distinct points are made here. Pleasure undercuts reason both by keeping it from seeing clearly and by resisting any restraints that reason tries to put on our action. This is followed by examples of the evils to which we are driven by pleasure: (a) betrayal and overthrow of the state and (b) sexual crimes such as debauchery and adultery. Next, in contrast to Polyarchus' claim that nature commands us to pursue pleasure, Archytas says that it is rather reason that nature (or god) has given as our most valuable endowment and that, far from pleasure being the goal of our nature, there is nothing so opposed to nature's best gift to us (that is, intellect) as pleasure. Political analogies are used to show that pursuit of pleasure perverts the proper relation between pleasure and reason. When lust is master there is no place for self-control. Virtue cannot live under the tyranny of pleasure. Finally the decisive argument to support pleasure's essential hostility to reason is given. It takes the form of a thought experiment. If we imagine someone under the influence of the greatest pleasure, there is no doubt that in such a state he would not be able to consider anything with his mind or achieve anything by reasoning. Thus to a proponent of a hedonistic calculus Archytas might reply that, in its purest and most intense form, bodily pleasure negates the possibility of calculation. Pleasure cannot be the goal of rational action precisely because the more successful we are in achieving pleasure, the less able we are to act rationally.[16] This is a direct response to Polyarchus' claim that the pursuit of pleasure is the mark of the man of intelligence.

There is no parallel in Plato for this thought experiment. However, in the *Nicomachean Ethics* Aristotle assigns to an unnamed predecessor an argument that looks very similar to Archytas' (1152b16). Aristotle says that one reason why people have thought that pleasure is not the good is that 'the pleasures are an impediment to thought.' Up to this point, Aristotle could be referring to any number of philosophers including Plato, but he continues 'and the greater our enjoyment of pleasure the greater the impediment, for example sexual pleasure, for they say that no one is able to think of anything in the midst of it.' Here there is a striking similarity to Archytas in the view Aristotle is describing. This view, like that of Archytas,

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[15] It should of course be recognized that what we find in Cicero adds yet another level of artistic reinterpretation, on top of what can be attributed to Aristoxenus, to whatever views Archytas may himself have had. However, Cicero's treatment of passages of Plato, which we can check (Powell, 1988, pp. 111ff.), supports the conclusion that he is likely to have preserved the main points in Aristoxenus' presentation.

[16] This suggests that more moderate pleasures could play a role in life, as long as they are guided by reason. That Archytas did in fact value some pleasures is clear from another testimony in Cicero (*De Amicitia* 23.88) where he talks of the contemplation of the heavens as potentially most pleasant (*iucundissima*) but as disagreeable (*insuavem*), unless we have someone to whom to tell our experience.

singles out a particularly extreme pleasure and argues that during such a pleasure thought is not possible. It is true that Aristotle specifically mentions sexual pleasure, whereas Archytas just refers to the greatest bodily pleasure that can be conceived. But surely sexual orgasm has to be the leading candidate in many people's minds for the gold medal as 'greatest bodily pleasure.' Moreover, a few lines earlier Archytas had singled out *adulteria* and *stupra* as set in motion by pleasure and Cicero's practice elsewhere suggests that, in the interests of decorum, he may have left vague what was an explicit reference to sexual pleasure in Aristoxenus' version.[17] It seems to me quite plausible to conclude that Archytas was the originator of what we may call the 'argument from orgasm' and that the exchange between Archytas and Polyarchus in Aristoxenus was not an attempt to plunder Plato for the glory of Archytas but instead has as its inspiration a tradition about Archytas himself. Despite the fact that scholars have not recognized that Archytas might lie behind this passage of the *Nicomachean Ethics*, it appears quite plausible that this is the case and that we should regard Aristotle as indirectly confirming the reliability of the tradition about Archytas preserved in Aristoxenus.[18]

Up to this point, the focus has been on Aristoxenus' testimony. However, we do have a fragment of Archytas' own writings that both further supports the probability that Aristoxenus is presenting a generally reliable picture of Archytas' views and also develops Archytas' response to the sophistic challenge. This is B 3 in Diels-Kranz. I do not have the space here to give a detailed defense of its authenticity. It is one of only four fragments that DK presents as genuine, in comparison to the almost fifty pages of spurious texts assigned to Archytas which

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[17] See Powell, 1988, pp. 113, 116 and especially p. 199, on Cicero's treatment of the Sophocles anecdote in the *Republic*.

[18] Some have thought that Archytas' speech was paralleled in the *Philebus* (21a – cited by Powell, 1988, p.186) and the *Philebus* has also been thought to be behind the passage in question in the *Nicomachean Ethics* (Diès, *Le Philebe*, Intr. p. lxiv). But the really distinctive feature of the Archytas passage and the passage in the *Nicomachean Ethics*, the argument that the man in the throes of the most intense pleasure is unable to reason, is not paralleled in Plato. The passage of the *Philebus* where Socrates asks Philebus whether he would lack anything, if he lived his whole life enjoying the greatest pleasures, suggests not that intense pleasure makes reasoning impossible, as the Archytas passage does, but rather that intense pleasure is not sufficient for a good life and that we need intelligence and thought in addition, so that we would be able to judge that we were in fact enjoying ourselves. Later in the *Philebus*, at 63d, the extreme pleasures (primarily bodily pleasures seem to be meant) are rejected by intelligence and mind as 'putting impediments in our way' (*empodismata*), but once again, while this passage agrees with the general point of Archytas' speech, none of the details match up. There is no discussion of Archytas' man in the state of maximum pleasure in Plato and no use of Plato's personification and interrogation of intelligence in Archytas.

Alternatively scholars have seen the *Phaedo* as the basis for the passage in the *Nicomachean Ethics*. In his commentary on *EN* 1152b16 Burnet argued that 'This really comes from Plato …The similarity of language is too striking to be accidental…' (p. 331). The similarities in language that Burnet notes are (1) between Plato's description of the body as *empodion* to the acquisition of *phronêsis* at *Phaedo* 65a and Aristotle's description of pleasure as *empodion tôi phronein* at 1152b16 and (2) between Aristotle's statement regarding sexual pleasure that 'no one would be able to think of anything in the midst of it' (*οὐδένα γὰρ ἂν δύνασθαι νοῆσαί τι ἐν αὐτῇ*) and Plato's assertion about the body that, as the saying goes, 'we are never able to think of anything on account of it' (*ὑπ' αὐτοῦ οὐδὲ φρονῆσαι ἡμῖν ἐγγίγνεται οὐδέποτε οὐδέν* 66c). However, Burnet goes on to point out some real differences: '… yet in the *Phaedo* it is not specially pleasure that is *empodion tôi phronein* but the body.' He then suggests that 'The natural inference is that a follower of Plato made use of the *Phaedo* in drawing an indictment against pleasure.' Gauthier and Jolif, 1970, vol. 4, pp. 789–90, suppose that Aristotle was drawing on the *Philebus* passage but, under the influence of Speusippus' thought prior to the *Philebus*, suppressing precisely the correctives that Plato was applying in the *Philebus*. Both this and Burnet's answer are becoming pointlessly convoluted; the supposition that it is Archytas that is behind the passage in Aristotle is much more straightforward and plausible.

can be found in Thesleff's collection of Pythagorean pseudepigrapha. I know of no detailed attack on its authenticity, although it is of course rejected by those who reject all the fragments as spurious.[19] However, as I examine its contents below, a number of reasons for regarding it as authentic will emerge. Our primary source for B 3 is Stobaeus (4.1.139), although the first four lines are also preserved in Iamblichus (*De comm. math. sc.* 11). There is in fact some question as to whether the first four lines of the fragment should be connected to lines 5–11.[20] Because of this and because their content is not directly relevant to my purpose here, I will focus on just lines 5–11, which are preserved in Stobaeus alone.

These lines have nothing to say about pleasure, but they do directly address another problematic term employed in Polyarchus' speech, *pleonexia*. The passage also focuses on the conditions necessary for the creation of a stable state and, as we have seen, Archytas regards the pursuit of pleasure as a threat to the state. The central concept in B 3 is *logismos*, which has connotations that are similar to those of the English word 'calculation.' In a narrow sense it means 'counting' or 'numerical calculation.' Thus, in the *Euthyphro*, Socrates argues that, if they had a disagreement about which number was greater, they could easily settle it by appealing to 'numerical calculation' (*epi logismon elthontes* – 7b10). However, it is most commonly used in a more general sense of 'the exercise of reason in rational inference and thought' (Irwin, 1985, p. 422) with no reference to numbers. Thus in the funeral oration it refers to the rational calculation that the Athenians use in evaluating the risks of an action. When Thucydides refers to the hesitation that *logismos* produces in other states (*logismos oknon pherei*) but not in Pericles' Athenians (Th. 2.40), he is clearly referring to the tension between rational debate of an issue and acting rather than to

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[19] In general DK follow the idea that fragments from the mathematical works are more likely to be genuine than those from ethical works. The reasoning is that it is more difficult to forge technical mathematics than fragments dealing with ethics. However, the forgery based on Plato's *Timaeus* and ascribed to Timaeus Locrus is full of rather technical mathematics, so that this criterion does not really seem to work. Yet, one of the major reasons that DK accept B 3 as authentic would appear to be that it is said by Stobaeus to come from a work entitled *Peri mathêmatôn* (Iamblichus calls it *Peri mathêmatikôn*) so that it comes from a technical work on mathematics, perhaps the same book from which B 1 comes. But clearly the content of B 3 has little to do with technical mathematics and references to book titles often become confused in the tradition. Both on these grounds and because the assumption that mathematical works can not be forged is questionable, it would seem better to judge the authenticity of B 3 on its content. That said, close examination of the language of B 3 gives little reason to suspect its authenticity as is shown in the rest of my paper. Zeller, 1923, p. 120, accepts it. Guthrie, 1969, p. 151 and 1962, p. 356, seems inclined to accept it as authentic as does Minar, 1942, p. 91. Burkert, 1972, p. 220 n. 14, says that 'there are certain grounds for suspicion' of B 1–3 in DK and that B 4 must be spurious. However, while he gives his reasons for doubting B 4 and later gives reason for doubting B 1 (p. 379 n. 46 – but for a response to these doubts see Huffman, 1985), he never has anything specific to say on B 3. Gruppe, 1840, who rejects all the fragments, has little specific to say about B 3 and his general criteria are too subjective. Thus he says that B 1–3 are too vacuous in content to be by Archytas, that *isotês* is used in a non-Pythagorean way in B 3 and that the use of *καί* in the fragment is Hebraic. However, we have no basis on which to decide whether B 3 is too vacuous for Archytas. It may be that Gruppe was expecting something similar to what we find in Plato. But why should we expect that? As I suggest below, the style is most similar to Democritus, who belongs to the generation before Archytas. Moreover, *isotês* as used in B 3 does not show any evidence of Platonic or Aristotelian influence, and it is hard to know what evidence Gruppe thought he had for the 'Pythagorean' use of the word to which Archytas is supposedly not conforming. Nor is the use of *καί* problematic.

[20] Blass, 1884, pp. 581–2, rightly noticed that the style of the two sections is very similar and accordingly felt that they did belong together (so also DK). However, Blass assumes a lacuna after the first four lines to explain the apparent break in thought. DK print no break between the parts but in the apparatus notice the problematic connection between the two parts. I think that the two do belong together and will argue in a forthcoming piece that the connection has become obscured because the text at the end of the first section is faulty.

math anxiety. In philosophical authors it is not typically used as a technical term but rather as a general term for the 'reason' that distinguishes human beings from animals, adults from children, and even the soul from the body.[21] Aristotle is the one author who does give it a technical sense.[22] In classifying the states of the soul that grasp truth he joins *logismos* with opinion as states that admit of falsehood in contrast to understanding (*ἐπιστήμη*) and comprehension (*νοῦς*) which are always true (*APo.* 100b7).[23] There is no trace of this Aristotelian distinction in B 3 of Archytas. Instead it is used in the broader sense of 'exercise of reason,' but I will argue that Archytas is making a conscious appeal to its narrower mathematical sense as well.

The first sentence of the fragment reads 'Once calculation (*logismos*) was discovered it stopped discord and increased concord.' It is possible that the aorists here should be taken as gnomic aorists and thus translated in the present ('Once calculation is discovered it stops discord and increases concord').[24] However, I prefer the possibility, which I do not have the time to defend here, that Archytas is in fact giving an account of the genesis of the state of the sort that ultimately goes back at least to the mid fifth century (for which see Kahn, 1981 and 1997). In that case, he would be arguing that the state could only arise after human beings had developed the art of calculation. The fragment continues:

> For greed (*pleonexia*) does not exist once this [sc. *logismos*] has come into being and equality (*isotas*) does exist. For by this we will become reconciled in our dealings with others. Through this, then, the poor receive from the powerful and the wealthy give to the needy, both in the confidence that they will have what is fair (*to ison*) on account of this.

Before going on to the last three lines of the fragment, there are several things that we should note about this hymn to *logismos*. First, the emphasis on quantitative terms clearly alludes to the 'numerical calculation' sense of *logismos*. The most obvious examples of this are *auxêsen* (increased), *pleonexia* (desire for more), *isotas*, and *to ison* (equality) but *homonoia* (of the same, or equal, mind) and the contrast between the rich and the poor points the same direction (cf. especially *tois deomenois,* 'those lacking,' as an expression for 'the poor' – *deô* is often used to express numbers in Greek). On the other hand, the very general claim that *logismos* allows us to become reconciled in all our dealings with others and its use later in the fragment to describe the reasoning process by which we conclude that we are likely to be caught, if we break the law, both suggest that Archytas cannot be thinking of just numerical calculation.[25]

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[21] It distinguishes human beings from animals which live just by impressions (Arist. *Metaph.* 980b28) and adults from children, who from the beginning have spirit (*θυμός*) but may never partake of *logismos* (Plato *R.* 441a9; cf. Arist. *Pol.* 1322b). Democritus uses it to contrast the soul with the body, arguing that perfection of the soul corrects the inferiority of the body but that physical strength without reason (*λογισμοῦ*) does not improve the mind (B 187).

[22] One source (Aet. 4.21 = *SVF* vol. 2, 227.25) reports that the Stoics used it as an alternate name for 'the commanding faculty' (*τὸ ἡγεμονικόν*), but it does not in fact appear very often in this use and the normal Stoic word for reason is simply *logos*. The Epicureans used the compound *epilogismos* as a technical term which designated 'reasoning based on empirical data' (Sedley, 1973, p. 27 – *analogismos* is also a technical term), but they used *logismos* itself with just the meaning of 'reasoning' in general.

[23] However, *logismos* itself does not occur as frequently in this sense as the verb *logizesthai* or the adjective form with the article, *to logistikon*. Thus, at *EN* VI.2, 1139a11 ff. Aristotle divides the rational part of the soul into *to logistikon* 'the rationally calculating part' and *to epistêmonikon* 'the scientific part.' The scientific part deals with necessary truths, whereas the rationally calculating part deals with what can be otherwise.

[24] This is the usual translation. So Guthrie, 1962, p. 336; Minar, 1942, p. 91; Freeman, 1971, p. 80.

[25] Morrison,1956, p. 155 translates *logismos* as 'formula' throughout B 3. It is attractive to think of the rich and the poor as having discovered a 'formula' for getting along. But Archytas uses *logismos* only in

Second, the terminology here has several points of contact with late fifth- and fourth-century political thought including the sophists, Plato and Aristotle.

Particularly important are the two pairs of concepts, concord/faction (*homonoia/stasis*) and equality/'having-more' (*isotês, to ison/pleonexia*). Both of these pairs of concepts have a long history in Greek political thought and it is beyond the scope of this chapter to go into Archytas' possible role in that history here. However, I would simply note, with regard to the authenticity issue, that nothing in Archytas B 3 is dependent on the definitions of *homonoia* and *isotês* developed by Plato and later philosophers. The evidence suggests that the concept of *homonoia* or concord first emerged in the late fifth century as a response to the *staseis* or civil wars between democrats and oligarchs that shook city state after city state. As de Romilly (1972, p. 199) remarks, one could even say that we can observe the birth of the need for this concept in the course of reading Thucydides' history.[26] Archytas' use of the term, in so far as we can grasp it from this short fragment, shows clearer connections to this early use of the term and to Democritus' use than to later distinctions. Particularly striking is Democritus B 255 where he

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the singular and it does not seem plausible that one 'formula' can solve all the problems to which Archytas alludes in B 3. It is more likely that he is thinking of the rational thought process that generates a variety of formulae to fit different situations, which is why I suggest 'calculation.' However, I don't think that we have the evidence to conclude that Archytas thought that there was a mathematical formula for each type of human interaction. Morrison uses fragments from the work *On Law and Justice* ascribed to Archytas to argue that there is just one 'formula,' the harmonic progression. But, apart from the problems which I have just discussed with the view that just one formula is meant, *On Law and Justice* is generally regarded as spurious (it is not in DK) and can not be used in this way until it has been shown to be genuine.

[26] The word does not occur in Homer, Herodotus or the tragedians but appears twice each in Democritus and Thucydides, before becoming very common after 404, particularly in the orators and sophists. In Thucydides it occurs in contexts of conflict between democrats and oligarchs at Athens (8.75.2 and 93.3).

For the development of the concept of *homonoia* from Plato to the Stoics see Schofield, 1991, esp. pp. 128–9. Plato makes concord a crucial element of his ideal state and relates it to friendship and to the virtue of temperance (*sôphrosunê*). Perhaps under the influence of Plato, it came into Stoicism through Zeno's *Republic*. Arius Didymus' account of Stoic ethics defines concord as knowledge of common goods (Stob. 2.93.19–94.6) which Schofield, 1991, p. 48 suggests is a shortened version of a full definition 'shared belief about the affairs of life, brought about by the knowledge of common goods.' There is no hint of this definition in Archytas.

The use of *homonoia* in the Pythagorean pseudepigrapha is clearly influenced by the *Republic*. 'Aresas' works precisely with the Platonic tripartite soul (*νόος, θύμωσις, ἐπιθυμία* Thesleff 1965, 50.11–12) and says that, when each part has been ordered according to the harmonizing proportion, *homonoia* and *homophrosuna* arise. The Platonic analogy between the soul and the city is also the context for the use of *homonoia* by 'Damippos' (ibid. 68.29). But there are no such Platonic overtones in Archytas B 3, where there is no reference to the parts of the soul or to the parts of Plato's ideal state. Nor is there any trace of the Platonic connection between friendship and concord or the controversy over whether it is shared opinion or knowledge.

Aristotle's primary discussion of *homonoia* is found in his account of friendship at *EN* IX.6 (cf. *EE* VII.7 and *MM* II.12). Concord is said to concern questions of action and questions of great importance for the city. He then defines concord as political friendship. Properly speaking it only exists among the good, since it is only they that wish for what is just and advantageous and seek it in common. Base people cannot be in concord, since they seek for more than their share (*pleonexias*) of benefits. Hence they do not preserve the common good and strife arises (*stasis*). In the *Magna Moralia* (1212a24) *homonoia* is similarly said to be a desire for the same end. Archytas Fr. 3 is somewhat closer to Aristotle's account than Plato's, in that it does specifically mention *pleonexia* as opposed to *homonoia*. But *pleonexia* is a common word in Greek moral and political discussions and not particularly distinctive of Aristotle's accounts. The distinctively Aristotelian features (for example, that it is political friendship, that it properly only exists among the good, that it involves a common goal) are not found in Archytas B 3, nor are Aristotle's examples (agreement about who should rule, agreement about alliances).

connects concord with the powerful helping the poor, just as in Archytas B 3.[27] The sophists also were concerned with *homonoia* in their accounts of the basis of the state. Antiphon wrote a treatise, of which some fragments survive, which was titled *On Concord* (DK B 44a, 63, 67).

The pair *isotês-pleonexia* is more central to my purpose in this chapter, because what Archytas has to say about *pleonexia* here is obviously very relevant to his response to Polyarchus' glorification of *pleonexia* and pleasure. It should be noted that the term 'equality' (*isotês*, *to ison*) does not occur in Polyarchus' speech and that it is 'leveling' (*homalizô*) that is opposed to 'overreaching' (*pleonexia*) there. Thus, I am not arguing that B 3 of Archytas came from a work that was addressing the sophistic challenge in just the form that Polyarchus gives it. The precise pairing of Polyarchus and Archytas is unique to Aristoxenus' *Life of Archytas*. I would suggest that B 3 comes from a systematic work of Archytas on the origin of the state, which is in part a response to the general argument of Polyarchus and others like him but which need not correspond exactly to the speech that Aristoxenus assigns to him. In fact the opposition between 'equality' and 'overreaching' is more prominent in Plato's portrayal of Callicles and Thrasymachus (*R.* 359c, *Grg.* 483c) and has roots still earlier in Thucydides. Thucydides treats *pleonexia* as a basic, but negative, force in human nature. It appears three times in the account of the revolution on Corcyra and is assigned a central role in the party strife (*stasis*), 'The cause of all these things was the desire for power on account of greed (*pleonexia*) and personal ambition' (3.82.8). In Diodotus' speech in the Mytilenean debate, he makes the point that human nature is disposed to do wrong and no law or punishment will stop wrongdoing. Poverty is given as one cause for breaking the law, but wealth is also blamed as producing arrogant 'overreaching' (*pleonexia*, 3.45.4). Thus *pleonexia* seems to be particularly associated with the abuse of power by a wealthy oligarchy and this will become more explicit later in Isocrates who also gives evidence for the corresponding connection between equality and democracy (Isoc. 7.60.3, cf. Arist. *Pol.* 1297a10, 1302b7).

The connection between 'equality' and democracy is again already clear in Thucydides as is the attack on this 'equality' by oligarchs. This attack depends on the ambiguity in meaning of *to ison* between what is 'equal' and what is 'fair.' In a speech in Book 6 of Thucydides (38.5), the Syracusan democrat Athenagoras reports the view of 'some people' that democracy is neither intelligent nor fair (*to ison*). That equality had become a deeply problematic concept in the first part of the fourth century is clear from Plato's famous criticism of democracy in the *Republic* (VIII.558c5–6) as 'distributing a sort of equality (*isotês*) to both equal and unequal.' In response to these difficulties about the simple conception of equality, there arose a distinction between two different sorts of equality which is clearly attested not only in Plato but also in Isocrates and Aristotle. Isocrates refers to this distinction at *Areopagiticus* 21 (cf. *Nicocles* 14 ff.) when he talks of 'the two accepted kinds of equality, one which distributes the same to all and the other which distributes what is fitting to each.' This development of the concept of equality is a complex issue that I cannot explore further here.[28] The primary point to be made about Archytas B 3 is that there is no sign of this later distinction between two types of equality. Yet,

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[27] Democritus B 250 says that 'It is from concord (*homonoiês*) that it is possible for city states to accomplish great things and fight wars; otherwise it is not possible.' Similarly Democritus attacks *stasis* in B 249 as good neither for those who conquer nor for those conquered.

[28] Cf. Plato *Laws* 757b , Aristotle *Politics* 1301b30 ff.; 1301a9 ff., 1280a7–25, *EN* V.3, 1131a9. For a complete list and discussion of the appearance of the two equalities in later Greek thought, see Harvey, 1965. On the development of the concept of equality and its connection to democracy see Ostwald, 1969; Guthrie, 1969, pp.148–63; and Vlastos, 1981. Guthrie, 1969, p. 151, notes that 'the connexion in thought between equality in the social and political field and in the field of metrical standards' can be found in Euripides' *Phoenissae* (531 ff.) as well as in Archytas B 3. He suggests that either this general idea or Archytas' formulation of it (it is not clear which he means) led to the controversy between the geometrical and arithmetical equalities.

it would certainly be expected to be found, if B 3 were a typical Pythagorean pseudepigraphon. Archytas seems to be working with an undifferentiated sense of 'equality' and allowing calculation to do the work of reconciling rich with poor. By the use of calculation each side comes to see that it receives what is fair (*to ison*).

This leads to one final piece of evidence in support of the authenticity of B 3. There is striking confirmation that some sort of special arrangement was reached between rich and poor at Tarentum. Aristotle at *Politics* 1320b9 says that 'it would be well to imitate the arrangements at Tarentum, for they obtain the goodwill of the multitude by making possessions common for use by the needy.' The exact nature of these arrangements is not clear from what Aristotle says, nor is any date given that would connect them explicitly with Archytas' rule in Tarentum. However, Aristotle is clearly reporting some sort of calculation on the part of the rich that leads them to conclude that it is best to share with the poor, a calculation that can only remind us of B 3 of Archytas. Since there are thus good reasons for regarding B 3 as in fact the work of Archytas, it is important to emphasize that the strong connections which it has to the issues raised by the confrontation of Polyarchus and Archytas in Aristoxenus' *Life of Archytas* give further support to the view that Aristoxenus is being relatively faithful to the philosophical position of the historical Archytas.

With our confidence in the authenticity of B 3 and the reliability of these testimonia thus fortified, let us finish reconstructing Archytas' response to the sophistic challenge by examining the last three lines of B 3. I would suggest that, in what we have seen so far of B 3, Archytas recognizes that there was a time before the discovery of calculation in which no stable state existed because of the prevalence of faction and 'overreaching.' To this extent he is agreeing with Polyarchus that *pleonexia* is natural. However, the discovery of calculation puts a stop to faction and increases concord, so that the state can arise. In the last three lines of the fragment, Archytas begins by identifying 'calculation' (*logismos*) as the standard (*kanôn*) of what is unjust and a check (*kôlutêr*) against those acting unjustly.[29] The reference to calculation as a standard of what is just seems to refer back to the previous two sentences of the fragment.

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[29] The most common literal meaning for *kanôn* is carpenter's straight-edge or rule. It occurs very commonly paired with *stathmê* as the 'line and rule' which allow the craftsman to do good work (for example, Xen. *Ages*. 10.2). It also has a metaphorical sense of rule or standard as here in Archytas. See Euripides *Electra* 52, *Hecuba* 602. Similarly in the *Nicomachean Ethics* (1113a23) the excellent person is called the standard and measure (*kanôn kai metron*) of what is fine and pleasant. In Hellenistic philosophy, *Canonic* became Epicurus' name for epistemology and *kanôn* comes to be used almost interchangeably with the central Hellenistic concept of a *kritêrion* or 'means of discrimination' of truth (Long and Sedley, 1987, p. 88). However, nothing in Archytas points to this specialized usage. Moreover, Democritus seems to have anticipated the Epicurean use of *kanôn* to some extent. He uses it in a epistemological context in B 6 and, even more significantly, in the list of Democritus' works are three books with the title *Peri logikôn ê kanôn* (D.L. 9.47). Even before Democritus and two generations before Archytas, the sculptor Polyclitus entitled his treatise on sculpture *Kanôn*. See DK 40 and Stewart, 1978.

The word paired with *kanôn*, *kolutêr*, on the other hand, has no parallel before Archytas. It occurs only three times in Greek literature and all of these uses are late: Porphyry *On Philosophy Drawn from Oracles* 121.8, Iamblichus *In Nic.* 52.17, and Hesychius 4823. However, a number of nouns ending in *-τηs* are alternate formations for the more common ending in *-τηρ*. Thus for example *kritêr* appears as a less common alternative to *kritês* (LSJ s.v.). Thus, the form *kolutês* is both more common than *kolutêr* at all times and does occur in the fifth century. It is used fairly commonly with *gignomai* where 'to become a preventer' is the equivalent of 'to prevent.' Thus Demosthenes asks 'if Athens does not become the preventer of this who will' (*De Corona* 72.6) and Thucydides reports that when the fleet at Samos intended to sail to Athens to deal with oligarchic revolt Alicibiades became the *kolutês* of this (8.86.5.1. See also 2.23.2.3). These parallels show that the use of *kolutêr* need not be a serious problem for the authenticity of B 3. Since our evidence for the dialect of Greek used in Tarentum is so meager it is perfectly possible that *kolutêr* was the form used there.

Calculation allows us to 'become reconciled in our dealings with others' and in particular allows the rich and the poor to recognize what constitutes a 'fair' *modus vivendi*. On the other hand, the reference to calculation as a check against those acting unjustly looks ahead to the end of the fragment. The last part of the fragment recognizes that, even after the discovery of calculation and the foundation of the state, there will still be two classes of people in the state, those who know how to calculate (*logizesthai*) and those who do not. Somewhat paradoxically, calculation is said to prevent the injustice of both of these parties. In the case of the first group it 'stops those who know how to calculate before they commit injustice, persuading them that they will not be able to go undetected, whenever they appeal to it.' The argument assumes that an efficient legal system has been established and then suggests that those who can reason will see that, if they try to act unjustly, they will be caught and punished. At first sight this might appear to be a strange argument, since, if we assume that these people know how to calculate in the first place, the first part of the fragment suggests that this calculation would tell them what is just and they would accordingly act justly, without any need to calculate the likelihood of being caught, if they did not so act. We cannot be sure how Archytas would have responded to this, but the most obvious response would be in terms of weakness of will. Calculation may tell us what is just, but even those who can calculate may need the extra incentive of the fear of punishment to in fact do what is just, so, as Archytas says, calculation is both the standard of what is just and the enforcer. In effect he is recognizing that 'overreaching' does not automatically disappear when calculation is discovered. Calculation must do more than demonstrate what is fair: it must check our desire for more by showing us that, in the properly functioning state, we will be caught and punished for any injustice, so that fear adds its weight to ensuring our just behavior.

It is harder to understand the way in which Archytas thinks that calculation prevents those who cannot calculate from committing injustice. A careful reading of the text leads to a somewhat surprising conclusion. The last section of the fragment reads, 'but those who do not know how to calculate, it prevents from committing injustice by revealing them as unjust in calculation itself.' In order to understand what is going on here, it is crucial to note the contrast in the verbs used in the two parts of the last sentence. Calculation is said to *stop* those who know how to calculate from committing injustice by *persuading* them, whereas it is said to *hinder* those who do not know how to calculate by *revealing* them as unjust. The key question is, 'To whom are those unable to calculate revealed as unjust?' Some scholars have assumed that it must be those who are unable to calculate themselves who are shown their own injustice.[30] But we are dealing with people who cannot calculate and it makes little sense to talk of calculation revealing something to them. Thus I suggest that it is the rest of the community, that is, those who can calculate, to whom calculation shows those who cannot calculate to be unjust. How does it do this? It shows that they are unjust precisely in calculation itself, that is, their inability to calculate. The parallel use of *autos* supports this reading. Just as those who can calculate are persuaded when they appeal to calculation itself (ὅταν ἐπ' αὐτὸν ἔλθωντι) so those who cannot calculate are revealed to be unjust in calculation itself (ἐν αὐτῷ). Thus, Archytas seems to be saying that those who do not know how to calculate will not only not see what is fair in relations between people and follow their desire to get more for themselves instead, but they will also not have any fear of being punished. Accordingly the very fact that someone cannot calculate shows that they will act unjustly. How then is the injustice of these people prevented? What we have of Archytas is not explicit on this point. However, the natural conclusion is that, as soon as someone is revealed as lacking the ability to calculate and hence as inevitably unjust, society can take measures to prevent their injustice, perhaps instituting special guard over him or even expelling him from the state.

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[30] Minar, 1942, p. 91; DK and hence Freeman, 1971, p. 80.

We are now in a position to pull together the various strands of Archytas' argument in order to view his response to Polyarchus' claim that nature both calls on us to pursue bodily pleasure and says that such pursuit of pleasure and the constant attempt to get more for oneself is the characteristic of the intelligent man. Our evidence for this response is uneven and, while in some areas there is a developed argument, in others we are left to conjecture what Archytas would have said. In the speech preserved by Cicero, Archytas responds directly to the hedonistic strand in Polyarchus' argument, when he argues that it is wrong to see the pursuit of pleasure as either natural or consistent with a life governed by intelligence. In fact, examination of pleasure shows that it is antithetical to nature's best gift, reason, and the more under its sway we become, the less able we are to reason. In the extreme case of sexual orgasm reason is completely extinguished. A second strand of argument against Polyarchus is developed in B 3. As in Cicero it is reason, here specifically *logismos*, that is the hero. However, in B 3 Archytas seems to recognize that we do indeed have a natural drive to get more for ourselves, but he argues that this *pleonexia* is antithetical to a stable political community, a community which is based on *logismos*. We do not have any explicit argument from Archytas to show that a stable political community is indeed desirable for the individual and on what grounds it is desirable. What we do get is an account of two ways in which *logismos* is crucial to the development of such a community. It both provides the standard of what is just that allows us to settle disputes with others, and also serves as an enforcer of the established laws. Archytas' reasons for thinking that it serves this latter role are relatively clear. It either leads us to calculate that we will suffer if we break the laws or it identifies those who will inevitably break the law because they cannot calculate. But we do not get a precise account of how calculation works to provide a standard of justice. Thus, there is no explicit argument as to why the rich should give to the poor. It seems likely that the argument would be an appeal to long-term self-advantage, probably in terms of the advantages of a stable community, since both the rich and the poor are supposed to conclude that they will get what is fair. It is now possible to see a striking continuity between what Archytas says about pleasure in Cicero and the two roles assigned to *logismos* in B 3. In Cicero, pleasure causes us to act as if blind (*temere*) to the standard (*kanôn*) that B 3 says is established by *logismos* and without the restraints (*effrenate*) that B 3 says that *logismos* imposes in its role as *kôlutêr*. The possibility that Aristoxenus composed Archytas' speech on pleasure with Archytas' own words on *logismos* in front of him is thus strikingly enhanced.[31]

In conclusion I would argue that these passages from Aristoxenus's *Life of Archytas* and B 3 of Archytas reflect genuine tradition and, properly appreciated, can shed important light on the sophistic debate in the late fifth and first half of the fourth century which focused on the relation between the virtues and *pleonexia*. Polyarchus should join Callicles and Thrasymachus as famous exponents of this view, although he may be almost as much a creation of Aristoxenus as Callicles and Thrasymachus are creations of Plato.[32] Furthermore, B 3 and the testimonia fit together remarkably well to give us at least a sketch of Archytas' arguments against pleasure

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[31] At *Laws* 644d–645c Plato does assign an important role in the state to *logismos*. A judgment (*logismos*) about whether fear or confidence is better in a given case when it takes the form of a public decision is called a law (*nomos*). In addition Plato goes on to say that judgment is gentle and free from violence which is somewhat parallel to Archytas' emphasis on the persuasive power of *logismos*. These similarities might suggest that Plato and Archytas shared a similar outlook on the role of *logismos* in the state and that one might have influenced the other. However, the similarities are very general and nothing of the specifics of the passage in the *Laws* is reproduced in Archtyas B 3 or vice versa.

[32] It is true that there is no evidence outside Plato for the existence of Callicles, while we have considerable evidence for the independent existence of Thrasymachus. Nonetheless, Thrasymachus as he appears in *Republic* I is still a literary creation of Plato's, and we should be slow to assume that he corresponds too closely to the historical Thrasymachus.

and *pleonexia* and his views on the origin of the state and of justice. I have argued that they do not betray the tell-tale signs of the forgeries in the Pythagorean tradition and thus show no signs of having been written in order to glorify Archytas as anticipating important distinctions in Platonic philosophy and as the Pythagorean master at whose feet Plato sat. We are still left with the important question of what the evidence for Archytas' response to the sophistic challenge does tell us about the relation between Plato and Archytas. To answer this question would require another full chapter. However, I would like to end with two observations.

The application of rational argument to moral issues embodied in the discussion between Callicles and Socrates in the *Gorgias* is much more developed than anything that is hinted at in Archytas. It would appear that Archytas is still writing in a Presocratic mode that relies more on assertion than extended argument. The style of his moral philosophy is more similar to what we find in the fragments of Democritus than what we find in Plato. Thus, there is no threat from Pythagorean circles to Plato's claim to have founded moral philosophy under the influence of Socrates. On the other hand, it has long been supposed that the Pythagoreans must lie behind Socrates' comment to Callicles at *Gorgias* 508a that 'wise men say that the heaven and earth and gods and men are held together by communion and friendship.'[33] Nothing that we have seen in Archytas corresponds to this appeal to the cosmos as a whole, although this could just be the result of the extreme paucity of evidence. However, the abuse that Socrates proceeds to heap on Callicles for his neglect of 'geometric equality' might well have been inspired by something very like B 3 of Archytas with its hymn to calculation as what establishes both concord and equality. Attempts to interpret 'geometric equality' as a technical type of equality in light of distinctions Plato makes later in the *Laws* have never worked very well, since the type of equality to which it refers, one that distributes according to merit, is exactly the type that Callicles would understand.[34] However, the expression 'geometric equality' is unparalleled in Plato and seems clearly coined for the context. If Plato wanted to refer to the ideas on equality expressed by his friend Archytas in B 3, he could not appeal to *logismos*, which is the central concept, because, taken out of the carefully designed context in B 3, *logismos* is too general a term. It would not work to chide Callicles for lack of rational calculation *per se*. He has clearly done a lot of calculating. Nor will it do to simply say that Callicles is rejecting equality, that was obvious from the start. So how can Plato refer to the sort of equality that Archytas thinks is established in the state by mathematical calculation? Our evidence makes it clear that Archytas was above all a master geometer who devised the first solution to the

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[33] See Dodds, 1959, pp. 337–9. But the 'wise men' need not just be Pythagoreans and may be a broader reference to the Presocratics (Burkert, 1972, p. 78 n. 157). The story that Pythagoras first called the universe *kosmos* is doubtful (Burkert, 1972, pp. 77–8). It is striking that not one of the terms which Plato uses in the *Gorgias* to describe the order of the world espoused by the wise men is found in Archytas B 3 (*koinônia, philia, kosmiotês, sôphrosunê, dikaiosunê* – Archytas B 3 has *homonoia* instead). For another view on this see de Vogel, 1966, p. 104.

[34] Dodds, 1959, p. 339, represents the traditional interpretation which takes 'geometrical equality' in a technical sense to refer to the 'aristocratic' equality that took into account merit in contrast to arithmetic and democratic equality that just distributes an equal amount regardless of merit. Burkert, 1972, p. 78 n. 156, shows the difficulties with using this sort of equality to refute Callicles. Irwin, 1979, raises the same problem but does not refer to Burkert. Vlastos, 1981, p. 195 n. 119, does not address this problem, but tries to flesh out and support the conjectures on which the standard interpretation is based. Vlastos, 1991, p. 129 n. 94, says to compare *to ison hexein* in B 3 with 'geometric equality' in the *Gorgias* without further explanation. De Vogel, 1966, p. 104, connects 'geometric equality' in the *Gorgias* with the 'geometric mean' in Archytas B 2. However, in that fragment Archytas is just defining the various types of mean in a musical context and does not apply them to politics. Morrison, 1956, p. 54, takes the traditional approach to interpreting 'geometric equality' but says that this represents Plato's views before contact with the Pythagoreans and that it is replaced by 'musical *symphonia*' in the *Republic* under the influence of Archytas.

problem of the duplication of the cube. So Plato accuses Callicles of neglecting the concept of political equality that had been developed by the foremost geometer of the day, Archytas.[35]

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[35] This chapter is dedicated to my great teacher and mentor, Alex Mourelatos. He has helped me in too many ways for it to be possible to enumerate them here. At every crucial point in my career he has been there with support. Although the subject matter of this chapter is not in an area where Alex has particularly worked, it is still, as is all my work, greatly indebted to the model of scholarship that he first provided in *The Route of Parmenides*. Alex's inspiration will take different forms for different people but, for me, he has always provided the paradigm of the proper mixture of close textual analysis informed by the scholarly tradition with a fertile imagination that sees interpretations not envisioned by others. Most of all he is a lover and master of the nuances and possibilities of the ancient Greek language.

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5

TRANSMISSION, TRADITIONS AND REACTIONS

Chapter 19

Aëtius, Aristotle and Others on Coming-To-Be and Passing-Away

Jaap Mansfeld

1

Among Aristotle's extant works one of the most difficult is a treatise in two books entitled *ΠΕΡΙ ΓΕΝΕΣΕΩΣ ΚΑΙ ΦΘΟΡΑΣ*, *De generatione et corruptione*, *On Coming To Be and Passing Away.*[1] This title, not used by Aristotle himself in his references to parts of this work, derives from its opening words *Περὶ δὲ γενέσεως καὶ φθορᾶς* (314a2) and by no means covers its entire contents. As the main sections forming the two books seem to have been hammered into a sort of whole at an early date, we may believe that it was soon referred to by others with the title deriving in the customary way from the opening sentence. Though much more than just coming to be and passing away are at issue, these play a major part in Aristotle's complicated inquiries, especially in the mini treatise consisting of the first four chapters[2] of *GC* but of course also elsewhere in the work, and they are naturally discussed in other treatises of the corpus as well. Time and again, as is his habit, Aristotle develops his own views from, and in contrast to, a (to some extent manipulated) critical overview of, or reference to, views of his predecessors.

Such quasi-historical passages have been more influential in Antiquity than is often realized. My claim in this chapter is that several chapters in Aëtius, viz., 1.24 Diels 'On coming to be and passing away,' *Περὶ γενέσεως καὶ φθορᾶς* (both ps.-Plutarch and Stobaeus) and 1.30 Diels 'On nature,' *Περὶ φύσεως* (ps.-Plutarch only)[3] are very dependent on Aristotle's dialectical forays in *GC* and elsewhere.[4]

When one wants to find antecedents of Aët. 1.24 Diels in Aristotle, the first treatise one should consider, naturally, is the *De generatione et corruptione*. Matters, however, are more complicated, as other Aristotelian passages are also involved, as well as passages in

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[1] Hereafter as a rule abbreviated *GC*. Note that Plato, *Phd.* 95e–96a, has Socrates put the whole of natural philosophy on a par with the explanation of *genesis* and *phthora*. Galen, *De locis affectis* VIII 58.11–59.7 Kühn mentions the debate *περὶ γενέσεως καὶ φθορᾶς* in a list of issues all of which recall *Placita* chapters and their headings, a passage I cannot deal with here.

[2] The division into chapters of our editions has no ancient authority. I shall refer to them for the sake of convenience.

[3] Diels' reference *DG* 327 (for the chapter heading only) to Stob. *Ecl.* 1.41, which has the chapter heading *Περὶ φύσεως καὶ τῶν συμβαινόντων ἐξ αὐτῆς αἰτίων*, is misleading, though it is possible (but unlikely) that the lemmas of Aët. 1.30 Diels were lost in the course of the transmission of the Stobaeus chapter. In Aët. 1.1.2 Diels we have superficial account of Aristotle's own views on nature, cf. below, text to n. 87.

[4] For another example, pertaining to *Cael.* 2.13 and Aët. 3.9–15 Diels, see Mansfeld, 1992a, pp. 94–109. On Aristotle's dialectical method see, for example, the excellent discussion in Algra, 1995, pp. 153–82 (cf. also below, n. 14); on its use by Theophrastus, see Baltussen, 1992. Runia, 1999a, is a good general introduction to the difficult issues of 'doxography.'

Plato.[5] When attempting to trace the antecedents of chapters in the *Placita* one should always take into account that we do not know very much about the long period separating Aëtius in the first century CE from the Peripatetics. Furthermore, it may be quite hard, even impossible, to decide between rival ancestries. Finally, there is the vexing issue of what I call retrograde contamination. The doxographical tradition is various and flexible, liable to suffer losses through epitomization but also to gain extra material through accretion. The author, or user, of a doxography may be in a position to go back to the original source(s), or to authoritative intermediate sources such as Theophrastus, Aristotle and Plato, or to consult other, more peripheral literature, and he may well think it worthwhile to put in a few extra bits. And doxographies are of course brought up to date to some extent by the addition of more recent material.

What I propose to do in this chapter is, first, to look at passages in the *De caelo* (the beginning of Book III) and the *GC* (the beginning of Book I) where the views of others on coming to be and passing away are reviewed and discussed by Aristotle (section 2), next (sections 3–6) to study the lemmas of Aët. 1.24 Diels and their immediate sources, viz., ps.-Plutarch and Stobaeus, in relation to passages in Aristotle and his tradition, and in Plato. Third, something will be said about Aët. 1.30 Diels in relation to passages in Aristotle and in relation to Aët. 1.24 (sections 7–8). The short final section will be concerned with ps.-Galen's abstract from Aët. 1.1.2 plus 1.30 Diels, or rather from ps.-Plutarch's *Placita*, chapters 1.1.2 and 1.30.

2

The dialectical discussion at *GC* 1.1–2 is a bit unexpected in that Aristotle immediately focuses upon the distinction between *genesis*, 'coming to be,' and *alloiôsis*, 'qualitative alteration' (more on this below). One would expect him to start with the Eleatic tenet that there is no *genesis* at all, and no *phthora*, no perishing, either.[6]

Actually this is what he does in another work where he formally discusses *genesis*, viz., at *Cael.* III.1, 298b12–299a2. In his dialectical overview *four* positions are listed which, as he says, differ both from each other and from his own view. The diaeresis is complicated: one thesis is opposed to three others which differ among themselves. The four tenets are as follows:

1 That of Melissus and Parmenides and their followers, who deny that *genesis* and *phthora* are real: it only seems to us that things come to be and pass away.[7] So it is all an illusion. This thesis is immediately refuted by Aristotle.
2 Some others 'as if intentionally,' held the opposite view, viz., that nothing is ungenerated and that of generated entities some perish and some do not. These people are Hesiod and his followers, and among the 'others' those who first dealt with nature. This thesis is not followed by a refutation. It is a bit of a riddle whom these *πρῶτοι φυσιολογήσαντες* represent, but fortunately we need not go into this matter here.[8] What is interesting is that

[5] Lachenaud, 1993, pp. 235–6 (as elsewhere, in other cases) has noted some parellels and antecedents in Aristotle, but his references are not always precise, and I shall mostly refrain from discussing them. This remark is not meant to imply that his comments are useless, for they are not. My main objection is that he comments on ps.-Plutarch as if it were an ordinary philosophical text instead of an epitome which is part of a flexible doxographic tradition. For a preliminary evaluation of his edition of ps.-Plutarch's text see Mansfeld and Runia (1997) 179–81.

[6] Lachenaud, 1993, p. 236 says that in *GC* too 'l'exposé commence par la thèse des Éléates,' *quod non.*

[7] ~ Parm. DK 28 A 25, 1st text. The parts of the list concerning the other positions are lacking in DK. It is clear why the fourth (for which see below, section 6) could not be included.

[8] Simp. *In De cael.* 560.20–24 believes that these are 'probably' Orpheus and Musaeus (*τῶν δὲ ἄλλων πρώτους φυσιολογῆσαι τοὺς περὶ Ὀρφέα καὶ Μουσαῖον λέγειν εἰκός*). Text printed Kern, 1922, p. 142.

Aristotle is quite open about the fact that he does not present these contrasting tenets in chronological order: for dialectical reasons the most radical and problematic one clearly has to come first.[9]

3 Others again, submit that all things come to be and are in flux, and that only one thing persists underneath, of which these other things are transformations. This is the view of many people, 'and of Heraclitus of Ephesus.'[10] This thesis is not followed by a refutation either.

4 Finally some people say that all bodies come into being; they 'put them together from planes and dissolve them into planes' (*πᾶν σῶμα γενητὸν ποιοῦσι, συντιθέντες καὶ διαλύοντες κτλ.*) This doctrine, Plato's of course in the *Timaeus*, is refuted at length; the others, Aristotle says, can wait, that is, they will be refuted eventually.[11] We must note the absence of others who spoke of the combination and separation of elemental stuffs, viz., the early philosophers who as we shall shortly see play such an important rôle in the *GC*.

As has already been pointed out above, the Eleatic view is lacking in the dialectical overview at *GC* I.1–2; there is only a single exception to which I shall revert in due time. The diaeresis is simple, though the dialectical discussion is quite complicated. Among the ancients, Aristotle says, there are two (contrasting) positions: some hold that coming to be *simpliciter* is alteration (that is, qualitative alteration), others that coming to be and alteration differ from each other. The monists, that is to say those who say that the all is some one thing and make everything else come to be from this one thing can only assume that coming to be is alteration (314a6–11, cf. 314b1–4). These people, we may point out, are about the same as those defending position (3) in the overview in the *De caelo*.

On the other hand, all the pluralists, for example, Empedocles, Anaxagoras, and Leucippus, have to assume that coming to be and alteration have to be distinguished from each other (314a11–3, cf. 314b4–5), notwithstanding the difference between the finitist Empedocles (four elements, or six items when the movers are included) and the infinitists, viz., Anaxagoras and Leucippus and Democritus (314a16–8). According to Aristotle, Anaxagoras turns out to be muddled, and gets short shrift (see further below, section 7). Empedocles is refuted at elaborate length. The details of these analyses and refutations are not so relevant for the moment; nor is Aristotle's point that these early philosophers fail to explain unqualified *genesis* or do not succeed in really distinguishing coming to be and qualitative alteration. What matters in our present context, that is, for our comparison of Aristotle and the *Placita* literature, is that according to Aristotle the old pluralists hold that coming to be and passing away occur when elements or elemental particles *come together* or *are separated* (314b5–6). To illustrate this doctrine he quotes from our Empedocles DK B 8:[12] 'there is no birth (*φύσις*) of anything, but only mixing, and separation of what has been mixed'.[13] These pluralists, in other words, defend

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[9] Compare, for example, the discussion of the thesis of Parmenides-and-Melissus at *Ph.* I.2–3, 184b25–187a11, which comes before that of the *physikoi* at *Ph.* I.4 ff.

[10] ~ Her. fr. 40 (*b*2) Marcovich, 4th text; see also Arist. *Ph.* VIII.8, 265a3–8 ~ Her. fr. 40 (*b*2) Marc., 9th text. Cf. Viano, 1989, p. 199. Simp. *In De cael.* 561.4 adds the names and principles of the early Ionian monists. Aristotle may also have had Plato *Tht.* 152e and 180d in mind (below, n. 38 and text thereto).

[11] At the end of this first chapter, 300a15–19, by way of a sort of afterthought, (5) certain Pythagoreans are mentioned and refuted, who put the universe together from numbers, that is, monads (~ 58.38 DK). I do not know why Simplicius fails to comment on this passage.

[12] More references to the sources for (parts of) this text in Diels, 1901.

[13] *διάλλαξις* in the Empedocles fragment is translated by Wright, 1981 and Williams, 1982 as 'separation'; others translate 'interchange' *vel sim.*, for example, Barnes, 1979, vol. 2, p. 137, and already the Arabic translation ('Austausch'). As to Aristotle in the present passage Williams is clearly right (for the problem of how to translate *φύσις* in the fragment see below, n. 76 and text thereto).

a mixing-cum-separation doctrine much resembling the Platonic position (4) described in the *De caelo*. Compare, for instance, *GC* I.1, 298b34, *συντίθεντες καί διαλύοντες*, with *Cael.* III.1, 314b5–6, *συνιόντων ... καὶ διαλυομένων*.

But in what follows at *GC* I.2, there is a major difference with the account in the other treatise. The issue of the existence or not of unqualified *genesis* and *phthora*,[14] and that of its mode of being, is posed in entirely abstract terms (315a26–7), without reference to champions on either side of the issue. Next Plato's view is mentioned but not analyzed in detail, as it is in the *De caelo*. He is criticized because he only gave an account of the coming to be and passing away of the elements,[15] and not of that of homoiomereous substances. Plato moreover entirely failed to explain increase and qualitative alteration (315a29–33). In fact nobody explained increase, mixture, and so on, correctly. Democritus and Leucippus, on the other hand, are praised for their thorough attempt to distinguish at any rate coming to be/passing away from qualitative alteration (*alloiôsis*). Coming to be and passing away are explained by them as the combination (*συγκρίσει*) and separation (*διακρίσει*) of the 'shapes,' that is, the infinitely many and various indivisible elements, qualitative alteration by their arrangement and position in a compound (315b6–9). Yet the basic doctrine of Atomists is refuted, like that of the others. But their fundamental intuition that there *is* a difference between *genesis* and *alloiôsis*, and that this has to be clearly explained in physicalistic terms, is sound. Aristotle sees them as allies who stick to (after all) the quite common and pre-philosophical intuition that there is a fundamental difference between change and birth, or death.

Before he begins his argument about divisibility, finite and infinite, Aristotle formulates the issue that is really involved (315b15–24). Almost all the experts are agreed that *genesis* is tantamount to combination, *phthora* to separation, and *alloiôsis* to the way things are affected by properties. But if coming to be *is* combination, a number of impossible consequences follow. Yet some of the arguments in favor of coming to be = combination are really very strong. (This points forward to the arguments of the Atomists). So one is saddled with an unpleasant dilemma: if coming to be is not combination (as Aristotle himself believes), then either *genesis* does not exist (but it does), or it is *alloiôsis* and we are driven back to primitive materialist monism (which for obvious reasons he does not want). Even the strongest arguments have to be refuted, and then one still is obliged to try and explain *genesis* as a process which is different from *alloiôsis*.

The latter will be accomplished, mainly, in *GC* I.3–4, chapters which (with the exception of a single passage)[16] do not concern us now. In our present context, viz., the search for Aristotelian antecedents of what is in the *Placita*, the Eleatic-looking statement at 315b22–3 '(then) *genesis* does not exist at all' is of greater importance. It is not a mere repetition of the programmatic declaration at the beginning of the chapter. It is part of an argument: if combination of 'shapes' is to be rejected, then either there is no *genesis*, or only *alloiôsis*. In its present form this argument is Aristotelian, but it may have had an atomist ancestor. The only correct explanation

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[14] *πότερον ἔστιν ἢ οὐκ ἔστι*. For this fundamental type of question or enquiry (*ζήτημα*) cf. Arist. *APo* II.1, 89b23–35, on which see Mansfeld, 1990a, pp. 3193–3208; 1992a, pp. 70–6; and 1998, pp. 21–4, 31; also see Algra, 1995, pp. 171–4 on the programmatic statement right at the beginning of *Ph.* IV.1, 208a28–30: *ὁμοίως δ᾽ ἀνάγκη καὶ περὶ τόπου τὸν φυσικὸν ὥσπερ καὶ περὶ ἀπείρου γνωρίζειν, εἰ ἔστιν ἢ μή, καὶ πῶς ἔστι, καὶ τί ἐστιν*. At the end of *GC* I.4 Aristotle states that the issues about *genesis*, *εἴτε ἔστιν εἴτε μή, καὶ πῶς ἔστι*, and about *alloiôsis* have now been treated.

[15] From what (and how) we are not told here but only quite a bit later, at 315b30–32, with an *ἐν ἄλλοις* ('elsewhere') reference to the *De caelo*.

[16] At 317a29–31 Aristotle attributes to *all* the early philosophers the *explicit* doctrine that being cannot be generated from absolute non-being. This entails a creative interpretation of Parmenides' predecessors, see Stokes, 1961, pp. 27 ff. Presumably Aristotle in the first place has the Parmenidean tradition in mind: Anaxagoras, Empedocles, the Atomists, discussed in the previous chapters.

of unqualified *genesis* is the coming-together, or combination, of indivisibles in empty space, and *alloiôsis* has to be distinguished from *genesis* – this very much looks like the Atomist answer to the Eleatic ban on *genesis* and *alloiôsis*,[17] even if we allow this answer to have been rephrased by Aristotle.[18]

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Aëtius 1.24 Diels, the chapter *Περὶ γενέσεως καὶ φθορᾶς*, contains three lemmas in the reconstruction in the *Doxographi graeci*: 24.1 is about Parmenides and his followers, 24.2 about Empedocles and other materialist pluralists, 24.3 about Pythagoras and those who agree with him.

As to the first lemma there is a minor difference between ps.-Plutarch and Stobaeus: the former (confirmed by the Arabic translation published by Daiber and the abstract at ps.-Galen *Historia philosopha* ch. 20) mentions Parmenides, Melissus, and Zeno. The latter, at *Ecl.* 1.20.1[a], mentions only Parmenides and Melissus. Ps.-Plutarch is an epitomator,[19] so the chances that he added Zeno are minimal. Melissus and Zeno are also coupled at Aët. 1.7.27 Diels, where this time we only have Stobaeus' version.[20] It is therefore far more likely that Stobaeus, who as a rule faithfully reproduces Aëtius' text,[21] at Aët. 1.24.1 Diels left out Zeno's name because he took Zeno (of Elea) to be Zeno of Citium, a doctrine of whom is quoted later on in the same chapter, viz., at 1[e] (where his name is found in the Arius Didymus fragment).[22] I translate the ps.-Plutarchan column of Aët. 1.24.1 Diels:

> Parmenides Melissus Zeno abolished coming to be and passing away because they held that the all is unmoved.[23]

This is a remarkable way of presenting the Eleatic argument concerning *genesis* and *phthora*. Zeno's arguments against motion are many, but there is no evidence that he used these to argue against *genesis* and *phthora* too, or indeed that he argued against *genesis* and *phthora* at all. To be sure, for Aristotle and Theophrastus the assumption of absolute immobility implies that there can be no *genesis*, and no *phthora*. So possibly Zeno's name has been added because the assumption that the all is *unmoved* is the premise here. But it is perhaps equally likely that Parmenides is simply accompanied by his two famous followers.[24] As to Parmenides himself,

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[17] For *alloiôsis* see, for example, Parm. DK 28 B 8.41, on change of color.

[18] See further below, n. 31 and text thereto, text to n. 37.

[19] Mansfeld and Runia, 1997, pp. 182–95.

[20] *Μέλισσος καὶ Ζήνων τὸ ἓν καὶ πᾶν* [sc. *θεὸν εἶναι*], *καὶ μόνον ἀίδιον καὶ ἄπειρον τὸ ἕν*, ~ Zeno DK 29 A 30 and Melissus DK 30 A 13 , 1st text. They are mentioned together already at Isocr. *Hel.* 10 (not in DK), at Plato *Tht.* 180e (~ DK 1.234.6–8), and at Timon fr. 45 Diels = fr. 45 Di Marco *ap.* D. L. 9.25 (~ Zeno DK 29 A 1; not in the Melissus section). According to ps.-Arist. *MXG* 979a22–3 and 979b16 (not in DK), Gorgias combined doctrines of Melissus and Zeno. See also below, n. 24.

[21] Mansfeld and Runia, 1997, pp. 213–38.

[22] Fr. 36 Diels *ad init.* ~ *SVF* 1.107, 512, 2.596 (Cleanthes and Chrysippus are also mentioned).

[23] *Παρμενίδης Μέλισσος Ζήνων ἀνῄρουν γένεσιν καὶ φθορὰν διὰ τὸ νομίζειν τὸ πᾶν ἀκίνητον* ~ Parm. DK 28 A 29, referred to Mel. DK 30 A 12 *ad fin.*; not in the Zeno section for the simple – or not so simple – reason that Diels and Kranz print Stobaeus' text (so already, a bit surprisingly, Diels, 1901, 4. Parm. test. 29).

[24] Zeno is Parmenides' pupil already in Plato's *Parmenides* (then also, for example, according to Theophrastus *ap.* D.L. 8.55 ~ Thphr. fr. 227B FHS&G, Parm. DK 28 A 9). Aristocles *ap.* Eus. *PE* 14.17.1 ~ Xenophanes DK 21 A 49 lists Xenophanes Parmenides Zeno Melissus. Eus. *PE* 10.14.15 (this part not in DK) and 14.17.10 speaks of a succession Xenophanes Parmenides Melissus Zeno. At *PE* 14.17.10 the

he first argued for the ban on *genesis* and *phthora* on ontological grounds and subsequently based motionlessness on the defeat of *genesis* and *phthora*.[25] Melissus derived the ungeneratedness of being from its having no beginning. Later on in his argument its being unmoved follows from its fullness: there is no void in which movement can take place.[26]

The lemma in the *Placita*, in other words, modifies the priorities in the Eleatic arguments as we know these from the verbatim fragments. This calls for an explanation: as was only to be expected, an intermediary source (or sources) must be at issue.

The argument of Aët. 1.24.1 Diels is not based on the dialectical passage in the *De caelo* cited above,[27] for there, *genesis* and *phthora* are explained away by Aristotle's Eleatics as illusory. So it has to be explained by adducing other passages.

The first we may try is Arist. *GC* I.8, 324b35–325a25:[28]

> The most methodical, most general and most simple explanation [of coming to be, passing away and motion/change] has been given by Leucippus and Democritus, whose point of departure agrees with the way nature is. Some of the ancients[29] held that being is necessarily one and unmoved; for there is no void, and being in motion is impossible without a separate void. […] (The whole is a homogeneous plenum), so it again necessarily follows that there is no motion. These arguments led them to go beyond perception […]. But Leucippus thought he had theories that said things which were in agreement with perception and would not abolish *coming to be and passing away* and motion and plurality. As to these he agreed with the phenomena, but he conceded to the (Eleatic) monists that there can be no motion without void […].[30]

The series of interrelated Eleatic (mainly Melissan) arguments paraphrased by Aristotle do *not* refer to coming to be and passing away, but only speak of *kinêsis*, motion, both at the beginning and at the end of the paraphrase. The reference to the void shows that the emphasis is on locomotion. Aristotle in the *Categories* (14, 15a13–4) says that *genesis* and *phthora* are two of the six kinds of motion (*kinêsis*); the others are increase and decrease, qualitative alteration, and locomotion.[30a] But elsewhere, for example, in the first chapter of the fifth book of the *Physics* (V.1, 225a20–b9, cf. the abstract at *Metaph.* XI.11) he states that only qualitative, quantitative, and local alterations are motions, and he explicitly argues that *genesis* and *phthora* are *not* motions. In the passage from *GC* I.8 quoted above it is the counter-argument[31] attributed

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list is continued. This *diadochê* is not exploited in DK. It is cited only at Nessas DK 69 A 1 where a 'vulgar biographer' is arbitrarily proposed as Eusebius' source, and then mentioned at Diogenes of Smyrna fr. 71.1 DK. See also above, n. 20.

[25] Parm. DK 28 B 8.3–4, 6–21, 26–31. See, for example, Barnes, 1979, vol. 1, p. 220; Sedley, 1999, p. 119.

[26] Mel. DK 30 B 1, B 7. See, for example, Barnes, 1979, vol. 1, p. 218; Sedley, 1999, pp. 128–9.

[27] Text to n. 7.

[28] ~ Leuc. DK 67 A 7 (324b35–325a6 + 325a23 ff.), ~ Mel. DK 30 A 8 2nd text (325a2–8), and, oddly, because the One is said to be infinite, ~ Parm. DK 28 A 25 2nd text (a13–19); see also below, n. 39. Aristotle knew Melissus well; the early catalogue at D. L. 5.25 lists a *Πρὸς τὰ Μελίσσου α΄* as nr. 95, a title also found in the *Vita Hesychii* as nr. 86, but absent from the late catalogue of Ptolemy al-Garib.

[29] Identified by Phlp. *In De gen. et corr.* 157.9–158.2 ~ Parm. DK 28 A 25 3rd text as Parmenides and his followers.

[30] Transl. Williams, modified; my italics. Note the subtle chiasm: at the end of this passage 'motion' comes before 'plurality,' while at the beginning 'one' precedes 'unmoved.' The thesis of the 'ancients' is grounded in a sufficient reason, viz., that there is no void, which is stood on its head by Leucippus.

[30a] This view seems to be behind Aët. 1.23.4 Diels (2nd part, Stobaeus *Ecl.* 1.19.1 only. The lacuna in the *DG* has been wrongly postulated, see Wachsmuth *ad* p. 162.8). The lemma is of course related to the theme of Aet. 1.24 Diels, cf. below, section 4 *ad finem*, and above, n. 10 and text thereto, below, text to n. 43. Discussion and reconstruction of chapter 1.23 at Runia, 1999b, pp. 199–204.

[31] Coxon, 1986, pp. 264–5 submits that in actual fact Melissus in DK 30 B 8 *ad init.* argued against

to Leucippus that brings *genesis* and *phthora* explicitly and literally into play. They become an ingredient of the Eleatic argument cited in this chapter only retrospectively, and by implication.

The second passage one should adduce is the quite compressed observation at *Metaph.* I.3, 984a30–b1 according to which some monists – that is the Eleatics – say the One and the whole of nature are unmoved (*ἀκίνητον*) not only as to coming to be and passing away but also, and this is something only these thinkers hold, as to all other forms of alteration (that is, qualitative, quantitative, and local alteration). Motionlessness in respect of *genesis* and *phthora*, Aristotle says, is an early view shared by everyone. What he means by nature's being unmoved with regard to *genesis* and *phthora* also according to the other early monists is that the substrate or matter – according to the *interpretatio Aristotelica* of their various principles – posited by them changes only in a qualitative way (cf. *ibid.*, 983b8–14). What is remarkable in view of the passage from *Physics* V quoted above, however, is that in the present one *genesis* and *phthora* are clearly motions, and that immobility in regard to coming to be and passing away *sensu aristotelico* is attributed to all the early monists. It would seem that in passages where he criticizes others Aristotle is more willing to subsume *genesis* and *phthora* under motion than when he expounds his own view (if, that is, we are allowed to discount the *Categories* passage).

My third text is a generalized version of the Leucippan argument set out at *GC* I.8 which is found in *Physics* VIII.1 250b15–8. (One may of course also argue that the Leucippan argument is a specialized version of this general argument.) Here Aristotle insists that all the philosophers of nature should admit that motion exists: 'all of them are concerned with the generation of the cosmos and the *genesis* and *phthora* of things, which cannot occur unless motion exists.' Motion here is a necessary condition of coming to be and passing away. Cosmogony is also an ingredient of the doctrine of Empedocles and other pluralists summarized at Aët. 1.24.2 Diels.[32] Because in the context of the general theme of this *Placita* chapter the idea of cosmogony is virtually superfluous, it would seem that the first doxographer to contrast the Eleatics and the pluralists as to their views on *genesis* and *phthora* was aware of *Ph.* VIII.1, 250b15–8. We may compare Theophrastus' remark about Anaxagoras at *Phys. op.* fr. 4 Diels (~ 228A FHS&G) *ap.* Simp. *In Ph.* 27.15–7: 'but as the cause of *motion* (*kinêsis*) and coming to be (*genesis*) he introduced Intellect, for it is through separation by this that he explains the coming to be of the *cosmoi* and of the other natural things.' See also *ibid.* 27.24–5 on Archelaus, 'who tried to say something original in his account of the *genesis* of the *cosmos*.' We may also adduce the first sentence of *Phys. op.* fr. 12 Diels (~ 184 FHS&G) *ap.* Philo *Aet.* 117:[33] 'Theophrastus says that those who speak of the *genesis* and *phthora* of the *cosmos* were led astray by four considerations […].'

On the other hand, a reference to Aristotle's fundamental diaeresis of doctrines concerning the *archai* at *Ph.* I.2 (quite often used in other treatises too),[34] where the Eleatics are said to defend one principle, or being, that is unmoved (184b16: *μίαν* [sc. *ἀρχήν*] … *ἀκίνητον*, b26: *ἓν καὶ ἀκίνητον τὸ ὄν*) will probably not be sufficient. No argument is provided here, and the concept of motion is not expanded so as to include coming to be and passing away in the discussion of Parmenides and Melissus to be found in the sequel of this chapter either.

What may have happened (this, at any rate, is the best suggestion I can come up with) is that the argument attributed to the Eleatics at Aët. 1.24.1 Diels, viz., that coming to be and passing away do not exist because the all is unmoved, ultimately derives from a combination of ingredients taken from the Aristotelian passages cited above. *Metaph.* I.3, 984a30–b1, as

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Leucippus. This does not matter in our context; compare above, p. 274, the passage where Aristotle makes Hesiod contradict the Eleatics. That Aristotle is right in taking Leucippus to argue against Melissus is argued by Kirk, Raven and Schofield, 1983, p. 409 n. 4.

[32] Cf. below, text to n. 55.

[33] See the overview of the *status quaestionis* at Sharples, 1998, pp. 131–6.

[34] Gilbert, 1909; Mansfeld, 1986a, pp. 7–15.

we have seen, is quite clear about the Eleatic denial of *genesis* and *phthora*, and of other kinds of motion; all one has to do when arguing dialectically, or writing doxographically, is to be silent about these other kinds of motion, and to omit the remark which attributes motionlessness in a certain sense to the principle of the materialist monists. The use of the acceptance, or denial, of motion as the premise of an argument likely enough derives from *Ph.* VIII.1, 250b15–18, itself as we have noticed clearly related to the Leucippan argument at *GC* I.8. As to the latter one may now compare Theophrastus' report of Leucippus' doctrine *ap.* Simp. *In Ph.* 28.4 ff.[35] What is in Theophrastus, naturally, is a continuation of what is in Aristotle. In the Theophrastus fragment too we find the opposition between the Eleatics (this time we hear names, viz., Xenophanes and Parmenides) and Leucippus, the former making 'the all one and unmoved and ungenerated and limited,' while Leucippus 'assumed infinitely many and moving elements, the atoms, [...] and observed unending *genesis* and alteration among the things there are.' Here, too, the Eleatics do not mention the *genesis* and *phthora* of things in the world, while Leucippus is explicit about them. One may also cite Hippolytus on Parmenides and Leucippus, *Ref.* 1.11–12,[36] which to some extent belongs with this tradition. Theophrastus' Eleatic-cum-Leucippan argument and counter-argument, moreover, are in a way anticipated at *GC* I.2, 315b20 ff.[37]

This is not to deny that Aristotle will have been influenced by passages about Parmenides and Melissus in Plato's *Theaetetus*, or that the later tradition too may well have been influenced by one or more of these passages (retrograde contamination).[38] In this dialogue[39] Plato, applying a simple division, several times contrasts Heraclitus and all those who like Heraclitus believe nothing ever is and everything is always becoming and flows, with people like Parmenides and Melissus who hold the opposite view: 'the all is unmoved,' 'all things are one and this one is at rest, itself within itself, having no place in which to move' (180e).[40] But in Plato, who in these *Theaetetus* passages uses *genesis* in the general sense of 'becoming' (*das Werden*), there is nothing equivalent to the emphasis on both coming to be *and* passing away found in Aristotle. To a later doxographer, however, such fine distinctions could well have been irrelevant. In Aët. 1.24 as reconstructed by Diels, moreover, there is no Heraclitus lemma. For the possibility that it was epitomized away by ps.-Plutarch see below, section 4.

That the tenet attributed to the Eleatics constitutes the *first* lemma of the *Placita* chapter will be due to the position of the Eleatic doctrine in the dialectical overview at *Cael.* III.1 discussed

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[35] ~ Thphr. *Phys. op.* fr. 8 Diels (~ 229 FHS&G).

[36] ~ Parm. DK 28 A 23 + Leuc. DK 67 A 10.

[37] See above, text to n. 18.

[38] For Plato on Heracliteanism see, for example, Mansfeld, 1986a, pp. 23–32; Viano, 1989, pp. 201–5. Some of these passages (cf. next n.) apparently were well known. *Tht.* 152d–153a + 179d–181a are quoted at length by Eus. *PE* 14.4.1–7 (and 180d-e from Eusebius at Theodoret *CAG* 2.15), while 152b–153b is quoted in Stobaeus' anthology at *Ecl.* 1.19.9. For another example of retrograde contamination see Mansfeld, 1998, p. 24 on Hermias' *Irrisio* (§ 2) and ps.-Justin's *Cohortatio* (§ 7), which closely correspond to each other and to some extent to the anterior *Placita* traditions, but also contain material deriving from Arist. *De an.* I.2 which is not found in the other doxographical, or doxographically inspired, literature on the soul. Similarly, Cicero (or one of his predecessors) may have inserted the Platonic reminiscence (*Phd.* 96b) into the doxography on the soul at *Tusc.* 1.18, just as *ibid.* 21 he inserted material about Dicaearchus (~ fr. 7 Wehrli) not to be found in the parallel doxographies. He had written to Atticus, *Att.* 13.32.2 (305 SB) ~ Dic. fr. 70 Wehrli to send him 'the two works on the soul' as well as others by Dicaearchus. Cf. *Att.* 13.13.2 = 302 SB. Shackleton Bailey's doubts, 1966, p. 350 are unjustified.

[39] Esp. *Tht.* 152e, 180c-e, 183e. Plato, like Aristotle in some passages about the Eleatics (as in the one at *GC* I.8), or about Melissus-and-Parmenides, tends to provide centos of their views.

[40] As to the uncertainties which plague the (garbled?) Parmenidean line quoted by Plato see, for example, Burnyeat, 1989, p. 310 n. 34.

above.[41] We have a list both times. In the *Theaetetus* we do not have a list of this kind, but a simpler division in which not the Eleatics, but the Heracliteans, come first.

If the above hypothesis is correct, the basic contents of Aët. 1.24.1 Diels and its present position as the first of a series of lemmas apparently go back to someone who knew Aristotle well enough to combine dialectical passages found in different treatises, such as the *De generatione et corruptione*, the *De caelo*, and the *Physics* and *Metaphysics*. The obvious candidate is Theophrastus.[42]

4

This hypothesis concerning a traditional position of the Eleatic view as the first tenet may tentatively be buttressed by another one. In the dialectical list at *Cael.* III.1 we also find a (Platonic-sounding) tenet about instability and flux and constant *genesis*, attributed to others but especially to Heraclitus.[43] Ps.-Plutarch 1.24 lacks a lemma with the name-label Heraclitus. But in the passage of Stobaeus which corresponds to ps.-Plutarch 1.24, viz., *Ecl.* 1.20.1, the Eleatic lemma is followed by a brief lemma pertaining to Heraclitus: *Ecl.* 1.20.1[b]. This sentence does not derive from Aristotle; it is virtually a literal quotation of a famous remark of Plato, *Crat.* 402a, about everlasting flux and the river one cannot step into twice.[44] Now there are signs of Stobaean intervention elsewhere at *Ecl.* 1.20.1. We have seen above that he presumably left out the name-label Zeno in the first lemma. Stobaeus' third lemma, about Plato's view concerning the perishability of the cosmos, corresponds verbatim with the greater part of the first lemma of ps.-Plutarch *Plac.* 2.4, and accordingly was printed by Diels as Aët. 2.4.2. It looks as if Stobaeus inserted a lemma from another chapter into this one.[45] The motive behind this move is not hard to find. In the next lemma of Aët. 1.24 Diels, that about Empedocles, and so on (see below, section 5), the persons concerned are said to be those who generate the cosmos;[46] the implication, as usual but with special emphasis in the context of this chapter, is that they also destroy it. This view is nicely counterbalanced by Plato's tenet in Stobaeus according to which the cosmos is generated but not destroyed (the doctrine of the *Timaeus*). Stobaeus, who clearly knows what he is doing, thus creates a sub-diaeresis within a diaeresis. But one cannot be absolutely certain. It is also possible that this Plato lemma really belongs in the Aëtius chapter on *genesis* and *phthora*, and that the tenet was there all along serving as a sort of counter-balance to that of the others who generate the cosmos. Then we have to assume that ps.-Plutarch struck it out here, only to insert part of it much later, viz., in *Plac.* 2.4.1. But this may well be less likely.

However this may be, it is a definite possibility that something in his Aëtian source prompted Stobaeus to quote Plato *Crat.* 402a[47] as a second lemma, and it is not implausible that this something was an Aëtian lemma with the name-label Heraclitus. The theoretical position may have been there, just as in Arist. *Cael.* III.1. And it is a fact that Stobaeus loved to replace

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41 Text to n. 7.

42 For another example of this attitude to the writings of the master see Mansfeld, 1996 on the *De sensibus*.

43 See above, n. 10 and text thereto.

44 ~ Heracl. DK 22 A 6, 1st text. The only difference is Stobaeus' *Ηράκλειτός φησιν* for Plato's *λέγει που Ἡράκλειτος* (see further below). There are four more passages from the *Cratylus* in Stob. *Ecl.* 1. Mansfeld and Runia, 1997, p. 225 accept that Stobaeus inserted the Heraclitus lemma from Plato, but fail to consider the possibility that it replaced something else.

45 For this method of coalescence see Mansfeld and Runia, 1997, pp. 218–24.

46 See above, text to n. 32, and below, text to n. 55.

47 *Tht.* 152b–153b had already been used up in Stobaeus' previous chapter (above, n. 38).

lemmas from the *Placita* with quotations from one of his favorite authors, viz., Plato himself,[48] though it has to be admitted that in the other cases these lemmas are about tenets attributed to Plato. Such quotations are often introduced with an explicit reference to a Platonic dialogue; this is lacking here. In favor of the (partial) replacement of an Aëtian lemma is also the fact that the name-label Heraclitus comes first.

If it should indeed be true that ps.-Plutarch at 1.24 deleted the Heraclitus lemma, this omission can be explained. The last lemma of his previous chapter,[49] 1.23.6, is about Heraclitus and attributes to him the tenet that all things are always moving, perishable things in a perishable way, eternal things in an eternal way.[50] So the notion of passing away (and by implication that of coming to be) is included here as well. Now the lemma in Stobaeus which corresponds to ps.-Plutarch 1.23.6, viz., the seventh[51] lemma at *Ecl.* 1.19.1, is much shorter: no reference to perishing, or corpses (ps.-Plutarch's *νεκρῶν*), in the Stobaean version[52] (both versions are printed at Aët. 1.23.7 Diels). This relative shortness is quite unusual, again in view of Stobaeus' usual fidelity in reproducing his *Placita* source.[53] The chances therefore are that ps.-Plutarch scrapped the original second Aëtian lemma (about Heraclitus on *phthora* and so on) in what became his Chapter 1.24, and inserted an abstract from it in the last lemma of the chapter that comes before.[54a] This, too, is a form of epitomizing. It should moreover be noticed that the opposition between the first and second lemmas of ps.-Plutarch 1.24 and of Aët. 1.24 Diels, and so the structure of the chapter as a whole, are much neater without an Heraclitus lemma sandwiched in between the other two. This may have been ps.-Plutarch's further motive for omitting an Heraclitus lemma (if, again, that is what he did), for as a rule he takes care to present the contradictions and diversities of clusters of *doxai* as clearly as possible.

5

The second lemma of Aëtius 1.24 Diels too derives from both ps.-Plutarch and Stobaeus. The only difference is that Stobaeus has four name-labels, viz., Empedocles Anaxagoras Democritus Epicurus, while ps.-Plutarch's epitome has only two, namely the first and the last: Empedocles and Epicurus.[54] The Hellenistic name-label Epicurus may in our present context be disregarded.

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[48] Mansfeld and Runia, 1997, pp. 265–6.

[49] The ch. *Περὶ κινήσεως*, 'On motion,' where somewhat to our surprise the Eleatics are not mentioned.; there is a lemma (Stobaeus only) with the name label Diodorus (Cronus): everything has moved, nothing moves. Excellent analysis, and reconstruction of the Aëtian form of this chapter can be found in Runia, 1999b, pp. 199–204, who prefers to translate the title as 'On change.' An interesting discussion of *alloîosis*, *genesis*, *phthora*, *auxêsis*, *phthisis* and the elemental qualities, including the presence of several name labels (Anaxagoras [bracketed by Müller because absent in one ms.; unnecessarily, it seems], Aristotle [interesting reference to the differences between *GC* on the one hand and *Mete.* and *Probl.* on the other], Chrysippus, Zeno, Hippocrates) is at Galen. *Nat. Fac.* II 2.6–8.7 K. = *Scr. min.* 3.101.11–107.7 Müller, a passage with doxographical undertones (cf. above, n. 1) with which I cannot deal here. Short excerpts at *SVF* 1.92 2nd text, 2.495 and 2.406.

[50] ~ Heracl. fr. 22A6 DK, 2nd text (= fr. 40 (d^1) Marc., 2nd text): *Ἡράκλειτος ἠρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὅλων ἀνῄρει· ἔστι γὰρ τοῦτο τῶν νεκρῶν· κίνησιν δ᾽ ἀίδιον μὲν τοῖς ἀιδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς.*

[51] Rather than the fourth as in Wachsmuth's *constitutio*, which (as ususal) follows that of Diels' text of Aëtius.

[52] After *ἀνῄρει* he continues with *κίνησιν δὲ τοῖς πᾶσιν ἀπεδίδου.*

[53] See above, n. 21 and text thereto. Runia (above, n. 49) omits to deal with this difference.

[54a] Cf. above, n. 30a.

[54] Both sources add unidentified others (*πάντες ὅσοι*).

The doctrine about *genesis* and *phthora* attributed to this group of people mirrors Aristotle's discussion of Empedocles, Anaxagoras, and the Atomists in the *GC*, though not, of course, without the usual sort of doxographic distortion. This flattening-out leaves out explicit mention of Empedocles' elements and Anaxagoras' corpuscles, leaving only 'bodies composed of fine particles.' Now Empedocles, Anaxagoras, Democritus, Epicurus, and all those

> who generate a cosmos[55] through the aggregation of bodies composed of fine particles introduce combinations and separations, but not comings to be and perishings (*geneseis kai phthoras*) in the true sense of these words (*ou kuriôs*). For these [sc. comings to be and perishings according to these philosophers] do not come about according to quality from alteration (*alloiôsis*), but according to quantity from aggregation.[56]

We have seen above that Aristotle in the first chapters of the *GC* argues that the pluralists to be consistent should claim that *genesis* and *phthora* are different from *alloiôsis*, while the early monists were unable to distinguish them. According to the pluralists the processes of *genesis* and *phthora* are a matter of combination and separation.[57] This is what we find this time as well. But now we must also look at Aristotle's argument that even the pluralists fail to account for unqualified *genesis* (and *phthora*). Aristotle successfully avails himself of his doctrine of the categories, claiming that unqualified *genesis* occurs only in the category of substance (*ousia*), while *alloiôsis* is a matter of the category of quality, and increase a matter of the category of quantity.[58]

The *placita* lemma at Aët. 1.24.2 Diels provides a garbled echo of these crucial distinctions. *Genesis* and *phthora* according to the pluralists do not result from *alloiôsis* (as Aristotle himself had already pointed out). So they do not occur according to the Aristotelian category of the *poion*, of quality. But according to Aristotle himself the *genesis* (by combination, or accession) and *phthora* (by separation) of the pluralists do not occur in the category of substance either, since they fail to account for unqualified *genesis* in the proper way. The conclusion that accordingly they occur in the category of the *poson*, quantity, where Aristotle at *GC* I.5 puts increase and decrease, is less incompetent than it may seem. At *GC* I.2, 315b1–3 Aristotle argues that none of his predecessors had explained increase, that is to say beyond what anyone would be able to say,[59] viz., that things grow bigger because something like it accedes (προσιόντος). But this accretion of what is 'like' is a kind of *combination*, and growing bigger has to do with size (also at *GC* I.5), that is, quantity. Our doxographer (or rather a source for 1.24 intermediate between Aëtius and Aristotle) has made explicit what is stated by Aristotle in an indirect way only. Compare *GC* I.5, 322a26–7 (my italics), 'insofar as what accedes is potentially a certain *quantity* of flesh, it is that which makes flesh increase' (ᾗ μὲν γάρ ἐστι τὸ προσιὸν – cf. above, προσιόντος – δυνάμει ποσὴ σάρξ, ταύτῃ μὲν αὐξητικὸν σαρκός). Could this exegesis go back to Theophrastus? We may compare *Phys. op.* fr. 3 Diels (~ 227A FHS&G) *ap.* Simp. *In Ph.* 29.21–3, where he states that according to Empedocles the eternal elements 'change in muchness and fewness by combination and separation' (μεταβάλλοντα δὲ πλήθει καὶ ὀλιγότητι κατὰ τὴν σύγκρισιν καὶ διάκρισιν), viz., as to their presence in compounds. Muchness and fewness belong with the category of quantity.

Furthermore, that the Aëtian *Placita* go back to a plurality of intermediary sources that do not always agree among themselves, and that interventions must have occurred, is also proved by a bizarre lemma in Stobaeus, viz., *Ecl.* 1.19.1 (162.8–10 Wachsmuth). This is printed by

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55 Cf. *Ph.* VIII.1, 250b15–8, quoted above, text to n. 32.

56 Aët. 1.24.2 ~ Emp. DK 31 A 44 and Anaxag. DK 59 A 65 (Stobaeus' more complete version).

57 See above, section 2.

58 See *GC* I.3–5.

59 Cf. Plato, *Phd.* 96c-d.

Diels as part of Aët. 1.23.4. Here we are told that 'there are some people who even introduce a fourth kind (of motion), that according to substance (*ousian*), which is the kind according to coming to be (*genesis*).' But the explanation of *genesis* as motion in the category of *substance*, however close it may be to a common-sense intuition is Aristotle's novel theory, as we have seen. It is most noticeable that this name-label is withheld and replaced by anonymous *τινες*. Could later Aristotelians be meant? This lemma, or something similar, might equally well have been located in the next chapter, notwithstanding the fact that there apparently (see the next section) the correct explanation of coming to be and passing away is said to be *alloîosis*, alteration in the category of quality. This plurality of intermediary sources is also indicated by the definition of matter at Aët. 1.9.1 Diels: 'Matter is what underlies all coming to be and passing away (*πάσῃ γενέσει καὶ φθορᾷ*), as well as the other forms of alteration (*ταῖς ἄλλαις μεταβολαῖς*).' Note that the first half of this definition is attributed to (Socrates and) Plato at Aët. 3.21 Diels.

6

Also the third and final lemma of Aët. 1.24 Diels is found in both ps.-Plutarch and Stobaeus, but the Stobaean text is a bit longer, and at first sight seems confused or at least confusing. It formulates the tenet opposed to that in the previous lemma, according to which a number of philosophers failed to allow for comings to be and perishings (*geneseis kai phthoras*) in the true sense (*kuriôs*). Others, indicated by the complex name-label 'Pythagoras and all those' (note this formula *καὶ πάντες ὅσοι*, also found in the previous lemma) 'who assume'

[ps.-Plutarch]	[Stobaeus]
that matter is passive (introduce) coming to be and passing away in the true sense; for these come about through the qualitative alteration and turning and dissolution of the elements.	that matter is passive (introduce) coming to be and passing away in the true sense; for through the qualitative alteration of the elements and (their) turning and dissolution [of coming to be and passing away] do juxtaposition and mixing, blending and fusion come about.
Πυθαγόρας καὶ πάντες ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως στοιχείων καὶ τροπῆς καὶ ἀναλύσεως ταῦτα γίνεσθαι.	*Πυθαγόρας καὶ πάντες ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γενέσεις καὶ φθορὰς γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως [γενέσεως καὶ φθορᾶς][60] παράθεσιν καὶ μῖξιν, κρᾶσίν τε καὶ σύγχυσιν γίνεσθαι.*

The explanation of coming to be and passing away in ps.-Plutarch comes quite close to Aristotle's explanation of *genesis* and *phthora* in the category of substance in the first book of

[60] *Deleverunt editores.* But the genitives *γενέσεως* and *φθορᾶς* may well be due to perseveration: no less than four genitives precede these two words in the clause in which they occur. For the simple emendation I should like to propose see below, n. 71 and text thereto. The final clause then would run '… do coming to be and passing away, juxtaposition and mixing, blending and fusion come about.' This makes sense.

the *GC*, where one element changes into another when one (or even two) of its *qualities* change into their opposite(s). Furthermore, when a lower element is changed into a higher one this, according to one of the options discussed by Aristotle, is tantamount to the unqualified *genesis* of the higher element, while the alteration of a higher element into a lower one is the unqualified *phthora* of this higher element.[61] Though 'dissolution', *analysis* (ἀνάλυσις, see Diels *DG*, index) is quite common as a technical term in the *placita* literature, it is also occasionally used in a similar way by Aristotle (Bonitz 48b24–6). A modernization of terminology – here for *phthora* by means of the Stoic-sounding terms τροπῆς καὶ ἀναλύσεως[62] – is not, of course, unusual in later authors.[63] The word παθητός ('affected') is not found in Aristotle;[64] the idea that matter is passive is expressed by him with the word παθητικός ('such as to be affected,' which apparently involves his doctrine of potentiality), see *GC* I.7, 324b18, 'matter *qua* matter is such as to be affected' (ἡ δὲ ὕλη ᾗ ὕλη παθητικόν). What I believe is that Pythagoras and his followers in the ps.-Plutarchan lemma represent the constructed Pythagorean succession (*diadochê*) which anachronistically includes Plato and Aristotle, known from Nicomachus of Gerasa and Hippolytus. Hippolytus even adds the Stoics.[65] But even earlier Aëtius 1.9.2 Diels (in the chapter 'On matter'), a bit more clearly in the version of Stobaeus which I translate than in ps.-Plutarch, speaks of 'Those following Thales and Pythagoras, I mean all the way down and including the Stoics with Heraclitus [the latter not in ps.-Plutarch's version] stated that matter is turning and changeable and changed and in flux entirely and in every way.'

The emphasis on matter's passivity at Aët. 1.24.3 Diels sounds Stoic rather than Aristotelian; for the Stoics matter is *the* πάσχον (for example D. L. 7.139 ~ *SVF* 2.300). The idea that qualitative alteration provides the correct explanation of coming to be and passing away in the proper sense is not Aristotelian. It is Stoic, though the term used by them, at least by Chrysippus, is not *alloîosis* but *metabolê*.[66] As David Hahm has explained in detail, insofar as the material cause, or principle, is concerned the Stoics returned to the kind of early materialist monism criticized and rejected by Aristotle. But Hahm rightly adds that they gave a rôle of primary importance to their second cause, viz., the active or moving principle.[67]

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[61] *GC* I.3, 318b2–18.

[62] For τροπή see, for example, *SVF* 1.102 ~ Ar. Did. fr. 38 Diels *ap.* Stob. *Ecl.* 1.17.3, ἐκ πυρὸς τροπὴ εἰς ὕδωρ δι' ἀέρος, and *SVF* 2.766 *ap.* D. L. 7.158, on the turnings of the psychic *pneuma* that cause the passions. No doubt derived from Heraclitus, see DK 21 B 31 = 53(*a*) Marc. It then became a common term, see Diels *DG* index s. v. τρέπειν (cf. also below, n. 70 on τρεπτά). For ἀνάλυσις (the dissolution of the other elements into primordial fire) and τροπή (elemental change in a cycle) see, for example, *SVF* 2.413 ~ Ar. Did. fr. 21 Diels *ap.* Stob. *Ecl.* 1.10.16[c]. Note moreover that the verb ἀναλύειν is used in this context by Aristotle (Bonitz 48b8–10), though he more often uses διαλύειν, cf., for example, *GC* I.1, 298b34 and *Cael.* III.1, 314b5–6, quoted above, p. 275.

[63] See Lachenaud, 1993, p. 43.

[64] Apart from the spurious *De mundo*, 392a34, also qualifying matter.

[65] Mansfeld, 1992b, ch. 8 and 1998, pp. 86–7.

[66] Ar. Did. fr. 21 Diels *ap.* Stob. *Ecl.* 1.10.16[c] ~ *SVF* 2.413. This is not to say that Aristotle does not use the term *metabolê*; see Bonitz 459a50 ff. And note Thphr. *Phys. op.* fr. 8 Diels (229 ~) *ap.* Simp. *In Ph.* 28.11: Leucippus 'observed a constant coming to be (*genesis*) and alteration (*metabolê*) in the things that are.' Aristotle, discussing the position of the Atomists (*GC* I.2, 315b6–9, cf. above, p. 276), speaks of *genesis* and *alloiôsis*. The term *alloiôsis* does not occur in the fragments of the *Phys. op.*, while *metabolê* occurs four times, but it is not certain that each time we have Theophrastus' own words. On the other hand, using the verb ἀλλοιοῦσθαι, he describes Anaximander's view in purely Aristotelian terms at *Phys. op.* fr. 2 Diels (~ 226A FHS&G) *ap.* Simp. *In Ph.* 24.23–6: 'he explains *genesis* not by alterations of the element (ἀλλοιουμένου τοῦ στοιχείου), but by the separating off of the opposites through eternal motion'.

[67] See Pohlenz, 1964, vol. 1, p. 71, and esp. Hahm, 1977, pp. 57–60. At p. 83 n. 4 Hahm says that perhaps 'the Stoics never spelled out the precise nature of elemental alteration.' Admittedly the evidence is thin, but less hopeless than he believes.

The final clause of Stobaeus' version, on the other hand, assuming the bracketing of γενέσεως καὶ φθορᾶς is accepted, is no longer about coming to be and passing away, but to our amazement lists the four Stoic (esp. Chrysippean)[68] types of combination and mixture. Now Aëtius had a chapter 'On mixture and blending' (*Περὶ μίξεως καὶ κράσεως*), four lemmata of which have been preserved at ps.-Plutarch 1.17 and at Stobaeus *Ecl.* 1.17.1 (the second lemma in Stobaeus has lost its beginning in the course of transmission).[69, 70] What is quite noteworthy is that the chapter in its present version in the two sources lacks a lemma naming the Stoics. What may have happened is that Stobaeus got his excerpts mixed up and – perhaps also via a sort of *saut du même au même* – added part of an Aëtian lemma on the Stoics on mixture to the lemma on the Pythagoreans and their following on coming to be and passing away.

What, however, is far more likely is that we should write γένεσ⟨ιν⟩ καὶ φθορ⟨άν,⟩ – note the comma! – ,[71] and interpret the bit about the (Stoic) view on the kinds of mixture as a sort of modernization and amplification of Aristotle's ideas on the same subject. For, on the one hand, no tenet with the name-label Aristotle is found in Aëtius' chapter 'On mixture and blending,' while on the other Aristotle, at *GC* I.10, explains mixture as involving the partial disappearance of the qualitative elemental forces that have been mixed by forming a union through approaching each other and meeting each other part of the way. And in this manner the many kinds of substances derived from combinations of the simple bodies, for example, flesh and bone, come to be, and such substances cease to be when these elements which were mixed in them revert to their original condition by being separated out. Chrysippus' concept of *synchysis* ('total blending') is of course as un-Aristotelian as the Stoic doctrine that two bodies may occupy the same place, but his notion of a kind of *krâsis* ('blending'), which allows for the ingredients to be separated out again is similar to Aristotle's notion of mixture. Furthermore, Alexander of Aphrodisias tells us that the (barely known) Stoic Sosigenes, a pupil of Antipater of Tarsus – so, to be dated, say, to the later half of the second century BCE – and others, when 'later' they were able to learn about Aristotle's view, actually took over many of his views on blending,[72] but because

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[68] For example, *SVF* 2.471 ~ Ar. Did. fr. 28 Diels *ap.* Stob. *Ecl.* 1.17.4, διαφέρειν γὰρ ἀρέσκει τοῖς ἀπὸ τῆς Στωικῆς αἱρέσεως παράθεσιν, μῖξιν, κρᾶσιν, σύγχυσιν κτλ., and *SVF* 2.473 *ap.* Alex. *De mixtione* ch. 3, 216.14–17.1 Bruns.

[69] Lachenaud, 1993, p. 232 n. 7 to his p. 93, refers to '884 D [sc. 1.24] et note *ad loc.*' The reference is promising, but the note I have not found.

[70] Note that the fourth lemma (both in ps.-Plutarch and Stobaeus) of Aët. 1.17 Diels 'On mixture and blending' could have been incorporated in 1.24, because it is about Plato's tenet that the 'three bodies' – ps.-Plutarch adds 'he does not want them to be, or to call (them), elements in the proper sense of the word' – 'fire air water turn into each other' (τρεπτὰ εἰς ἄλληλα – for τρεπτά cf. above, n. 62), while earth cannot change into either of them (see *Tim.* 56d). Cf. Nemesius, *De natura hominis* ch. 5, p. 50.25–6 Morani, where a quite similar phrase is found. The Aëtian lemma is about the coming to be and passing away of the elements in an Aristotelian sense. Aristotle refers to the fact that not all the elements in the *Timaeus* change into each other at *GC* II.4, 332a29–30, and explicitly criticizes this view at *Cael.* III.7, 305a3–5.

Echoes of a doxographical overview resembling Aët. 1.17 Diels at Galen, *On Cohesive Causes* ch. 5, pp. 59.34–61.12 Lyons (here the Stoics too are present). It will be clear that the contents of 1.17 and 1.24 are to some extent related, just as the themes are already related in Aristotle.

[71] See above, n. 60 and text thereto. Jan van Ophuijsen suggests to me that one could also emend to γενέσε⟨ι⟩ς καὶ φθοράς. This is even simpler from a paleographical point of view, as it involves the change of only one letter. The accents in the mss are of course irrelevant. My only objection is that the substantives that immediately follow (just as those that come immediately before) are in the singular.

[72] Alex. *Mixt.* 216.9–14 Bruns (*SVF* 2.470 *ad fin.*, 3 p. 258 Sosigenes). Part of his name and a few more letters are left in Philodemus' *Index Stoicorum*, col. liv.1 Dorandi, and according to the Parisian index to Diogenes Laërtius – on which see Mansfeld, 1986b, pp. 310–12 and Dorandi, 1992 – he was discussed in the lost part of book eight (these texts not in *SVF*). Todd, 1976, p. 188 believes that

they disagreed with Aristotle on other points they turn out to contradict themselves in many ways. This, tantalizingly, is all Alexander says. It is not to be precluded that such a syncretism of Aristotelian and Stoic doctrine influenced the *Placita* lemma. The doctrine of coming to be and passing away in this final lemma not only deals with the elements as such, but also, by means of the various kinds of combination and mixture, with the coming to be, presumably, of animals, plants and other compounds.

What is in any case true is that what appears to be the Stoic explanation of elemental alteration in the proper sense of the word (also involving coming to be and passing away) through qualitative alteration is at Aët. 24.2–3 Diels combined with the Aristotelian categories of quantity and quality, and the Aristotelian term *alloîosis* replaces the Stoic *metabolê*.

7

The final chapter of the first book of Diels' Aëtius (not in Stobaeus),[73] entitled 'On nature,' is remarkable. That is to say, it does not provide what the title makes one expect and what has in fact already been provided at Aët. 1.1 Diels, the chapter entitled 'What is nature?' (*Τί ἐστι φύσις*, not in Stobaeus either). Ch. 1.30 does not define or explain the concept of *physis* ('nature') but contains two lemmas pertaining to tenets according to which there *is no* such thing as *physis*:[74]

> Empedocles (holds) that there is no *physis*, but mixing of the elements and separation. For in the first book of his *Physika* he writes as follows:
>
> > I shall tell you something more: there is no *physis* of all that is mortal, or an end consisting in wretched death, but only mixing, and separation [?][75] of what has been mixed, and *physis* is what it is called by men.
>
> In the same way Anaxagoras (holds) that *physis* is combination and separation, that is to say coming to be and passing away.

The meaning of *physis* in this verbatim Empedocles fragment is disputed.[76] We have seen above (in section 2) that Aristotle for example, at *GC* I.1, 314b5–8 where he quotes parts of the fragment interprets *physis* here as *genesis* in Empedocles' sense of a combination of parts of elements. But at *Metaph.* V.4, 1014b35–1015a2, where the whole fragment is quoted, he interprets *physis* as substance (*ousia*), which, however, he seems to put on a par with something called 'primary combination.' At first sight it would appear that in the *Placita* context *physis* in the Empedocles fragment indeed means *genesis*, just as according to Aristotle (in the first chapter of the *GC*), where he also takes *διάλλαξις* to mean 'separation.' But note the fourth line: men call *physis* what really is only 'mixing and separation (?).' It is idle to speculate about lost

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Alexander 'must be *speculating* [my italics] that there was Aristotelian influence on the Stoic theory of mixture,' but this is pure speculation. Alexander for instance does not attribute this syncretism to Antipater himself and says that Sosigenes and others came to know Aristotle's views only 'later,' which presumably means after Antipater had gone. Another pupil of Antipater, Panaetius, admired Aristotle and the Peripatos as well (Cic. *Fin.* 4.79 ~ Panaet. fr. 55 van Straaten = fr. 79 Alesse; Philod. *Ind. Stoic.* col. lxi.2–7 Dorandi).

[73] See above, n. 3 and text thereto.

[74] The first lemma is Emp. DK B 8, the second is not in DK. On this *Placita* chapter cf. the helpful remarks of O'Brien, 1969, pp. 165–6. Lachenaud, 1993, p. 239 correctly points out that 'le lecteur des *Placita* est bien obligé d'établir un lien avec 884 D [sc. 1.24 Diels] où l'on trouve *γενέσεις* et *φθοράς*.'

[75] See above, n. 13.

[76] For the issue see, for example, O'Brien, 1969, pp. 165–6; Wright, 1981, p. 175 with references; Inwood, 1992, pp. 32, 85 n. 13; Lachenaud, 1993, p. 239. The Arabic translation is not helpful here.

lines that would have followed, lines maybe telling us that 'the end consisting in wretched death' too is merely a human way of designating what really happens in the real world, viz., separation.

What *physis* in the Anaxagoras lemma means is also a bit tricky. Ps.-Plutarch/Aëtius begins by stating that Anaxagoras agrees with Empedocles about *physis* for he, too, said that *physis* is combination and separation, that is: *genesis* and *phthora*. So *physis* here at least seems to be more than *genesis* in the sense of coming to be only: it includes *phthora*. If according to the compiler of this *placita* chapter Anaxagoras' tenet agreed with Empedocles', Empedocles' must have agreed with Anaxagoras'. Empedocles too, then, according to our compiler, would mean both *genesis* and *phthora* when talking about *physis*. Natural philosophy would be about *genesis* and *phthora*, would be *de generatione et corruptione*. *Genesis* in the sense of 'birth', or of coming to be, *implies* 'death,' or passing away.

What I think should be done in the first place is to recall who first *disertis verbis* mentioned Empedocles and Anaxagoras together because, after all, their concept of *genesis* as *combination* (and of *phthora* as *separation*) in his view was not good enough or, in Anaxagoras' case, inconsistent. This person, as we have seen *ad satietatem*, is none other than Aristotle in the first chapter of the *GC*.[77] The most plausible hypothesis therefore is that it is this Aristotelian chapter, and this Aristotelian context, which prompted the *Zusammenstellung* of Empedocles and Anaxagoras in Aët. 1.30 Diels. The intermediary source, viz., the one depending on Aristotle which in its turn became the ultimate source of the Aëtius chapter, remarkably enough filled in the gaps in Aristotle's Empedoclean quotation. For the Anaxagoras lemma it did not, apparently, come up with a verbatim quotation. But it is clear that what occurs at Aët. 1.30.2 Diels, the omission of which in *Die Fragmente der Vorsokratiker* is a serious oversight, is a paraphrasing abstract of the famous Anaxagoras fragment quoted verbatim by Simplicius:[78]

> The view of coming to be and perishing held by the Greeks is not correct. For no thing comes into being or perishes; on the contrary, it is from things that are that it is mixed together and (into which) it separates out. For this reason they would be correct in calling coming to be being mixed together and perishing separating out.

Oddly enough, the 'correct' view formulated in this fragment seems at first sight to have been put to one side by Aristotle, who states at *GC* I.1, 314a13–4: 'Anaxagoras did not know his own words,[79] for he says[80] that to come to be and to pass away are the same as to be altered.' This is puzzling, for Aristotle's claim cannot be paralleled exactly from any other fragment or clear testimony concerning Anaxagoras. This, anyhow, is certainly the case if one translates: 'did not know the proper term, for he says and so on.' Simplicius at *In Ph.* 163.3–28 discusses Anaxagoras' doctrine, *inter alia* citing both Alexander of Aphrodisias' reference to *GC* I.1, 314a13–4, and Anaxagoras DK B 17. He introduces the verbatim fragment with the words 'Anaxagoras clearly

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[77] Plato, *Lg.* X.893e, cited by O'Brien, 1969, pp. 165–6, does not mention names, and moreover speaks of increase and decrease as combination and separation.

[78] Anax. DK 59 B 17 *ap.* Simp. *In Ph.* 163.20–24 (and in part *ibid.* 162.5–7). Empedocles DK B 8 and Anaxagoras DK B 17 on combination and separation are often discussed together in the learned literature, see, for example, Barnes, 1979, vol. 1, p. 137; Schofield, 1980, p. 44; Graham, 1999, pp. 166–7. Bollack, 1969, p. 87 correctly points out that the words Aët. 1.24.2 Diels *σύγκρισιν … φθοράν* 'tiennent lieu d'une citation' of DK 59 B 17.

[79] Phlp. *In De gen. et corr.* 11.15–6 and 19.1–2 and Alexander of Aphrodisias *ap.* Simp. *In Ph.* 163.9–16 interpret 'did not know the proper term.'

[80] Compare, for example, Aristotle's comparison of the early philosophers with untrained soldiers, or boxers, at *Metaph.* I.4, 985a13–18, esp. the clause *οὔτε οὗτοι* [the philosophers] *ἐοίκασιν εἰδέναι ὅ τι λέγουσιν* ('they do not know [that is understand] what they say').

states in the first book of his *Physika* that to come to be and to be destroyed is to be combined and to be separated.' The solution to the puzzle, I believe, is that the first of the two translations listed above is to be preferred, and to assume that Aristotle's formula 'his own words' refers not only to Anaxagoras B 17, but also to other passages (fragments in DK) where there is no room for real, that is, substantial, *genesis* and *phthora* but only for combination and separation. Aristotle's criticism, then, pertains to the fact that according to Anaxagoras things not only were 'all together' (DK 59 B 1) at the beginning, but that they still are (see DK 59 B 6, *ὅπωσπερ ἀρχὴν εἶναι καὶ νῦν πάντα ὁμοῦ*). So the set of corporeals in the world may be considered to be one, which indeed comes close to the (Aristotelian) *archê* of the early monists. Compare for instance *Metaph.* XII.2, 1069b20–24, where Aristotle puts Anaxagoras' *ὁμοῦ πάντα*, Empedocles' 'mixture' (viz. the elements as blended in the Sphere), and that of Anaximander, and the way Democritus formulates this (viz. the *panspermia* from which a cosmos is formed) on a par, and argues that it would have been better if these people had said that 'all things were potentially together' in the primordial mixture rather than actually.[81] Anaxagoras' association and dissociation can therefore be interpreted as modifications of this basic *πάντα ὁμοῦ*, that is to say as *alloiôseis*.

My conclusion is that an important source intermediate between Aristotle and Aëtius *supplemented* Aristotle's account. Its author not only completed the verbatim Empedocles fragment by looking it up in the text of the original poem, but also (to explain the reference of the formula 'his own words') added a paraphrase of what Anaxagoras had explicitly said on the subject. The most plausible candidate, again, is Theophrastus.[82] As a matter of fact Theophrastus in his *Physics*[83] accepts Aristotle's interpretation of Anaxagoras' material principle(s), for he says that one may view the mixture of all things as a unity and that this indeed is what Anaxagoras really wants to say.[84] I therefore have to assume that the justification for Aristotle's critical remark vanished from the doxographical tradition, just as the critical remark itself.

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If the above arguments are acceptable, both Aët. 1.24 and 1.30 Diels would go back, ultimately and in the first place, to Aristotle's dialectical discussions and remarks. In the course of their history their contents have been modified in various ways, some of which have been discussed above. What remains strange is that we have two chapters instead of one. The views attributed to Empedocles and Anaxagoras at 1.30 (ps.-Plutarch only) are entirely compatible with those attributed to Empedocles, Anaxagoras, Democritus, and Epicurus at 1.24.2. So why this repetitiveness, especially in an epitome such as that of ps.-Plutarch?

I can come up with only one explanation. I have argued elsewhere that in the course of the transmission of the pluriform tradition the *Placita* underwent an important change: they were revised (at least in part) by a person, or persons, of skeptical leanings, who emphasized the

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[81] For this constructed Anaxagorean two principles doctrine cf. further Arist. *Metaph.* I.8, 989a30–33, Thphr. *Phys. op.* fr. 4 Diels (~ 228A FHS&G), cf. below. n. 84, and Aët. 1.3.5 *ad finem*. See also Joachim (64) *ad GC* I.1, 314a13–14 (whose argument however is not entirely clear); he rightly translates 'failed to understand his own utterance' – so also the Revised Oxford Translation. Also cp. Lanza, 1966, p. 109.

[82] See Mansfeld, 1996, for another case where Theophrastus corrects an Aristotelian quotation (viz. Parm. DK 28 B 16 at *Sens.* 3).

[83] *Phys. op.* fr. 4 (cited above, n. 81) where he puts him on a par with Anaximander. See McDiarmid, 1953, pp. 96 ff.

[84] *Ibid. ap.* Simp. *In Ph.* 27.19–21 (also 154.19–21), *εἰ δέ τις τὴν μῖξιν τῶν ἁπάντων ὑπολάβοι μίαν εἶναι φύσιν ἀόριστον καὶ κατὰ εἶδος καὶ κατὰ μέγεθος, ὅπερ ἂν δόξειε βούλεσθαι λέγειν κτλ.*

diaphoniai (contradictions) among the tenets of the philosophers, physicians and astronomers.[85] Now the first chapter of the first book of ps.-Plutarch/Aëtius, as I have already mentioned above,[86] is entitled 'What is nature *(physis)*?', and in its second lemma gives a quite short and not entirely accurate version of Aristotle's views on the matter.[87] According to (this) Aristotle, *physis* exists and can be talked about. According to the introduction at 1.30.1, the Empedocles (and so also the Anaxagoras) of the final chapter hold that *physis* does not exist. The first and the last chapter, spanning the length of the entire first book, provide a nice (though a bit superficial) *diaphonia*. To my surprise, the key to the structure of numerous individual chapters which I believe to have uncovered some years back also fits the question of Aët. 1.1.2 plus 1.30.[88] Those who believe that these two chapters are too far apart to have anything to do with each other are invited to look at the next section, on ps.-Galen. It is, naturally, possible that in the version of ps.-Plutarch at ps.-Galen's disposal the Chapters 1.1 and 1.30 were still together, or had been recombined. But in the version of ps.-Plutarch known to us (and to the Arabic translator) they are separate. David Runia suggests (*per litt.*) that ps.-Plutarch at first left out the contents of 1.30 when summarizing 1.1, but then thought it would be nice to have some poetry at the end of the first book, where he had a bit of room left. This is possible, but against it, in my view, is the fact that in ps.-Plutarch each of these chapters has an innocuous short title which does not give the contents away, viz., 'What is nature?', and 'On nature', and that 1.30 could also have been inserted in some way or other in 1.24.[89]

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The *Historia philosopha* of ps.-Galen, which beginning with Chapter 20 is mostly an epitome of ps.-Plutarch's epitome of Aëtius,[90] combines abstracts from ps.-Plutarch 1.1.2 plus 1.30 with other material in Chapter 20.[91] The author clearly noted that according to their titles the two ps.-Plutarchan chapters are dealing with the same subject, so – in the process rubbing out the contradictions involved – he decided to combine them.[92] We may note that the order is *reversed*: as a second lemma we have the abstract from 1.30, while that of 1.1.2 comes third and last. The first lemma is about the Stoic view of nature.[93] Is this, too, from ps.-Plutarch, or did ps.-Galen get it from elsewhere?[94] At ps.Plutarch 1.7.881F ~ Aët. 1.7.33 Diels, which is quite close (and excerpted at ps.-Galen *HP* 35) the word *physis* is absent, but in view of other texts about Stoic doctrine where this word does occur in this or a very similar context, ps.-Galen may have taken the liberty of combining something from ps.-Plutarch with something from elsewhere. His epitome, after all, is not based on ps.-Plutarch alone.

As is perhaps only to be expected in the epitome of an epitome, the link between Aristotle and ps.-Galen (in Chapter 20 of the *Historia philosopha*) is utterly thin, almost non-existent.

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[85] For example, Mansfeld, 1990a, pp. 3063–4 and *passim*.

[86] p. 287.

[87] For the Aristotelian ingredients, see Lachenaud, 1993, p. 195.

[88] Above, text to n. 85.

[89] See also below, n. 92.

[90] See now Mansfeld and Runia, 1997, pp. 141–52.

[91] According to Diels *DG* 611 *ad loc.* it is 'partim ex ps.Plut. 1.1.2 et 1.30.'

[92] Or else his version of ps.-Plutarch had only one chapter, see above, section 8 *ad finem*. But this assumption does not agree very well with the order of the lemmas in ps.-Galen.

[93] Text not in *SVF*.

[94] See Mansfeld and Runia, 1997, p. 150. The closest parallel is at *SVF* 2.774 *ap.* D. L. 7.156.

Connections which with more or less plausibility may be hypothesized between Aëtius 1.24 and 1.30 Diels and Aristotle, are no longer feasible for ps.-Galen when this epitomator is considered independently from the tradition to which he belongs.*

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Chapter 20

On the Pervasiveness of Being

Paul Thom

The pervasiveness of Being is the doctrine that everything is. This doctrine would be false if something was not. That being is pervasive is not a trivial claim. An ontology might be motivated by the desire to quantify over non-beings in such a way that we can say that *something* is a flying man without implying that some *being* is a flying man. If such a distinction is allowed, then it might be thought that something is not, even though no *being* is not. Pervasiveness then would be true for beings but not for 'somethings.'

This chapter explores the different positions that philosophers from Parmenides to Aristotle take on the question of the pervasiveness of Being, and traces some of the relations linking those positions to one another.

1 Parmenides

The pervasiveness of Being is stated explicitly by Parmenides:

> For there neither is what-is-not …[1]

Parmenides has to maintain the pervasiveness of Being given that he believes that its alternative is unspeakable:

> … the other, that __ is not __ and that it is right that __ be not __, this I point to you as being a path from which no tidings ever come; for you could neither come to know that which is not __ (for it cannot be consummated) nor could you single it out.[2]
> For it is neither speakable nor thinkable that it is not.[3]

The argument is simple. If mention of what-is-not is not admitted in a particular language, then of course that language will not allow any sentence of the form '*a* is not,' and so in that language it will have to be said that everything is.

Parmenides' central thesis, that '__ is __ and that it is not possible that __ be not',[4] is designated by him as:

> … the course of Persuasion (for she attends truth).[5]

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[1] B 8.46 (Mourelatos, 1970, p. 123).
[2] B 2.5–8 (Mourelatos, 1970, p. 55).
[3] B 8.8–9 (Mourelatos, 1970, p. 98).
[4] B 2.3 (Mourelatos, 1970, p. 55).
[5] B 2.4 (Mourelatos, 1970, p. 55).

Note the thesis's modal import. Parmenides is asserting that everything is, not just as a matter of fact, but necessarily. And this is fitting, given that the premiss of his reasoning is the modal claim that '*a* is not' *cannot* be said.

Is Parmenides' position internally consistent? It depends. If we suppose that his philosophy is intended as a description of language in general, then it will appear to be self-refuting. He tells us that various things can *not* be spoken, or thought, or singled out, or consummated, at the same time forbidding us to make negative statements. Consistency can, however, be rescued by distinguishing an object-language *about* which Parmenides is speaking, and a meta-language *in* which he is speaking. We can then represent him as saying, in the meta-language, that there are no negative statements in the object-language. In this case, Parmenides' project will be a prescriptive one – to delineate the conditions that govern a certain 'higher' language that is not subject to the contradictions inherent in the language of mortals.

This is a noble conception, but not one that will be universally shared. Faced with these Parmenidean prescriptions, there will always be anarchic spirits who will dare to speak of what is alleged to be unspeakable.

2 Gorgias

Gorgias is one such. In what seems like a head-on confrontation of Parmenides' philosophy, Gorgias's work *On What-Is-Not*[6] aims to prove three things: that nothing is, that even if something is we would not know it, and that even if something is and we could know it we could not communicate it to others. In the course of this perplexing reasoning, Gorgias gives instances of things that are not.

In the second part of his treatise, where he is trying to show that even if there are beings, they must be unknowable, Gorgias writes:

> So it is not the case that thinkables [*phronoumena*] are beings … For, Scylla and Chimaera and many non-beings are thought.[7]

Here he mentions two non-beings, thereby seemingly giving an easy refutation of the thesis of the pervasiveness of Being. Earlier he had mentioned flying men and chariots riding over the sea as instances of what-is-not being thought.[8] (There, it seems, 'what-is-not' meant what is not the case.)

His examples illustrate the important point that thought has the power of extending beyond what is (both in the sense of what exists and in the sense of what is the case). However, as a response to Parmenides, Gorgias' point misses its mark. Parmenides himself was aware that the thoughts or ordinary mortals encompass what is not, and indeed what cannot be. This does not count against the pervasiveness of Being because the thought of ordinary mortals does not meet Parmenides' demanding standards. Parmenides' primary purpose was not so much to describe the language of ordinary mortals, as to articulate conditions governing a superior language, a language sanctioned by a Divinity who is concerned above all with Truth, Necessity, Justice, and Fate.

Gorgias labors to defend the logic of his reasoning, insisting that the inference 'the thinkable is not, so what-is is not thinkable' is logically on a par with 'the thinkable is white, so the white is thinkable.'[9] But the two inferences have different forms – '*a* is not *b*, so *b* is not *a*' compared

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[6] Buchheim, 1989, pp. 41–64.

[7] Sext. Emp. *M.* 7.80 (Buchheim, 1989, p. 60). Ps.-Aristotle, *MXG* 979a12–980b20 (Buchheim, 1989, pp. 40–52.) does not contain the reference to Scylla and Chimaera.

[8] Sext. Emp. *M.* 7.79 (Buchheim, 1989, p. 60).

[9] Sext. Emp. *M.* 7.77–8 (Buchheim, 1989, pp. 58–60).

with '*a* is *b*, so *b* is *a*.' Aristotle's distinction between universal and particular statements helps here: the former inference is valid only for universal statements, the latter only for particulars. If the two inferences are to be genuinely analogous, then not both are valid; and if both are to be valid, they are not analogous. So, Gorgias's defence of his reasoning fails, and his use of these examples is logically fallacious. If something thinkable is not a being, that doesn't imply that some being is not thinkable, let alone that no being is thinkable, as would be required if the second part of Gorgias's argument were to be successful.

Regardless of the validity of Gorgias's reasoning, and of its power to damage Parmenides' philosophy, is his position internally consistent? Yes. So long as we extend Gorgias' ontology so that it includes some universal characteristic – say Subsistence – that applies to Scylla and Chimaera, and to what is not the case, as much as to what exists or is the case, while Being is restricted to a special sub-class of the subsistent, then his position is isomorphic with the one adopted by Russell in *The Principles of Mathematics*:

> *Being* is that which belongs to every conceivable term, to every possible object of thought – in short to everything that can possibly occur in any proposition, true or false, and to all propositions themselves. Being belongs to whatever can be counted. If *A* be any term that can be counted as one, it is plain that *A* is something, and therefore that *A* is. '*A* is not' must always be either false or meaningless. For if *A* were nothing, it could not be said not to be … Thus being is a general attribute of everything, and to mention anything is to show that it is … *Existence*, on the contrary, is the prerogative of some only among beings.[10]

Where Russell speaks of Existence as a species of Being, our extension of Gorgias's ontology treats Being as a species of Subsistence. Formally, the two systems are identical. Therefore, if one of them is formally consistent so is the other.

In the first part of his treatise, Gorgias aims to prove not just that something is-not but that nothing is, by refuting each of the three propositions:

i. what-is-not is,
ii. what-is is,
iii. both what-is and what-is-not are.[11]

(i) He offers two reasons for rejecting the proposition that what-is-not is. The first reason is that to accept that what-is-not is, is to be committed to accepting an explicit contradiction:

> What-is-not is not. For if what-is-not is, something will both be and not be. For in so far as it is understood as not being it will not be; but in so far as it *is* what-is-not, it will be. But it is utterly absurd for something both to be and not to be. Therefore what-is-not is not.[12]

This reasoning is valid. Whether the statement 'what-is-not' is universal or particular, it implies that something both is-not and is.

Gorgias's second reason for rejecting the proposition that what-is-not is, takes the following form:

> … further, if what-is-not is, what-is will not be (for these are mutual contraries); and if Being is an accident of what-is-not, not-Being will be an accident of what-is; but it's not the case that what-is is not, so it's not the case that what-is-not is.[13]

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[10] Russell, 1937, p. 449.
[11] Sext. Emp. *M.* 7.68–76 (Buchheim, 1989, pp. 54–8).
[12] Sext. Emp. *M.* 7.67 (Buchheim, 1989, p. 54).
[13] *Ibid.*

This reasoning is also valid provided that both premise and conclusion in the inference 'what-is-not is, so what-is is-not' are particular propositions. Valid it may be, but the reasoning is flawed, as is Gorgias's first argument. Both are question-begging. Any doubt about the proposition that what-is-not is, would transfer to the proposition that something both is and is-not, and to the proposition that what-is is-not. These are no more evidently absurd than is the proposition to be refuted. In fact, Gorgias's supposed refutations of the proposition that what-is-not is, both seem to be worthy recipients of Aristotle's jibe in *Metaphysics* IV.4 that it is due to 'lack of training' that some people try to demonstrate the principle of non-contradiction.[14]

(ii) Gorgias' argument for rejecting the proposition that what-is is, rests on a logical division of all beings into those that are eternal, those that are created, and those that are both eternal and created.[15] The argument aims to refute the proposition that what-is is, by demonstrating that what-is cannot be eternal, cannot be created, and cannot be both eternal and created. What-is cannot be eternal, because:

> … if what-is is eternal it is infinite, and if it is infinite it is nowhere, and if it is nowhere it is not.[16]

On the other hand, what-is cannot be created, because it cannot be created from what-is, nor from what-is-not. Finally, what-is cannot be both created and eternal since these attributes are mutually incompatible.[17] The author of *MXG* comments that in this argument Gorgias mixes disparate elements drawn from Melissus and Zeno.[18]

(iii) That what-is and what-is-not cannot both be, is, according to Gorgias, easy to prove:

> For if what-is-not is, and what-is is, then what-is will be the same as what-is-not, in respect of Being; and consequently neither of them is. For it is admitted that what-is-not is not; and it has been proved that what-is is identical therewith; therefore it too will not be.[19]

This is a *non sequitur*. There are two specific ways in which *a* and *b* might be the same in respect of Being – either because they both are (this is the positive way) or because neither of them is (this is the negative way). Now, Gorgias is in effect arguing that if what-is and what-is-not are the same in respect of Being, in the positive way, then they are also the same in respect of Being in the negative way. This is like arguing that if two wines are the same in respect of color, because both are white, then it follows that both are red!

Is Gorgias' nihilist position coherent? No. In criticism of Gorgias, Pseudo-Aristotle points out that Gorgias hasn't shown that nothing is: on the contrary, the argument begins by showing that something – namely what-is-not – is; so if it's also the case that what-is is then *everything* (not nothing) is.[20]

> … then what-is-not, no less than what-is, will be. For what-is-not is what-is-not, just as what-is [is] what-is; so that things no more are, than they are not.

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[14] 1006a5–8 (Kirwan translation).

[15] A better division would have had 'what is *neither* eternal nor created' as its third member. A parallel argument at Sext. Emp. *M.* 7.73–4 divides beings into one and many, and proceeds to argue that what-is cannot be either one or many. Cf. *MXG* 979b36–980a1 (Buchheim, 1989, p. 46), where the argument's Zenonian ancestry is brought out.

[16] Sext. Emp. *M.* 7.70 (Buchheim, 1989, p. 56).

[17] Sext. Emp. *M.* 7.71–2 (Buchheim, 1989, p. 56).

[18] *MXG* 979b21–5 (Buchheim, 1989, pp. 44–6).

[19] Sext. Emp. *M.* 7.75 (Buchheim, 1989, p. 58). A supplementary argument is given at Sext. Emp. *M.* 7.76.

[20] 979a37–b2; 979b7–10, 15–19 (Buchheim, 1989, pp. 42, 44).

Here we have a Gorgian argument for the pervasiveness of Being; and one which, if sound, demonstrates the *necessary* pervasiveness of Being. For, surely, a proposition is necessary if it is implied by its own negation; and Gorgias is here saying that a proposition of the form '*a* is' is implied by the corresponding proposition '*a* is not'. But is he right? What justifies the assertion that this implication holds? Two things: the assertion that what-is-not *is* what-is-not, and a rule allowing us to infer from a statement of the form '*a* is *b*' to the corresponding statement '*a* is.' This proof of pervasiveness is very different from the argument used by Parmenides. It is a direct proof, not a *reductio*; and it dares to speak of what-is-not. The *MXG* point is fair criticism. Gorgias, in trying to demonstrate that Being is nowhere to be found, has shown that it is found everywhere.

Gorgias' treatise can be read as a flawed attempt to show that Not-Being is pervasive – an attempt which incidentally shows the very opposite, that Being is pervasive. While it is clearly some kind of reaction to Parmenides' poem, it pays no attention to Parmenides' primary aim of distinguishing between the language of mortals and a language that meets the Goddess' requirements.

3 Plato

Could it be that both Being and Not-Being are pervasive? Plato finds a way of establishing just this conclusion at the same time as respecting the Parmenidean aim of distinguishing ordinary language from a higher language in which reality is accessed (the language of the Forms). He distinguishes two ways of taking the expression 'what-is-not.' In one sense,

> Parmenides: … the words 'is not' mean simply the absence of being … The words mean without any qualification that the thing which is not in no sense or manner is …[21]

Taking 'what is not' the other way,

> Stranger: When we speak of 'that which is not,' it seems that we do not mean something contrary to what is but only something that is different.[22]
> Parmenides: … the thing in a sense is not, though in another sense it is.[23]

In the first sense '*a* is not' contradicts '*a* is,' but not in the second. In the second sense – but not in the first – '*a* is not' entails '*a* is a thing that is not,' which entails '*a* is.'

At *Sophist* 237b–239b and *Parmenides* 163b–164b, Plato explores the idea of what-is-not in an absolute sense. He takes absolute Not-Being to be contrary to Being, in the sense that there is no overlap between what-is and what-is-not.[24] And he agrees with the historical Parmenides that, strictly speaking, what-is-not in this sense cannot be spoken about:

> Stranger: It is unthinkable, not to be spoken of or uttered or expressed.[25]
> Parmenides: … we cannot attribute to 'what is not' anything that is: we cannot say it is 'something' or 'this thing'; or that it is so-and-so 'of this' or 'of another' or 'to another'; or that it is at any time, past, present or future; or that there is anything '*of* it' – any knowledge or opinion, or perception *of* it – or that it *has* anything, even a name, so as to be a subject of discourse.[26]

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21 *Parmenides* 163c (Cornford translation).
22 *Sophist* 257b (Cornford translation modified).
23 *Parmenides* 163c (Cornford translation).
24 *Sophist* 237c.
25 238c (Cornford translation). Cf. 237e.
26 164a–b (Cornford translation).

Seeing that what-is-not in this absolute sense is the logical complement of what-is, Plato can accept Parmenides' argument for the pervasiveness of Being based on the unthinkability of the alternative. So much for absolute Non-Being.

At *Sophist* 254b-259b and *Parmenides* 160b-163b, Plato explores the idea of what-is-not in the sense of what is not *something or other* – relative non-being. Not-being in this sense is argued to be pervasive, on the grounds that in a world where there is more than one object, difference is pervasive.[27] Plato argues at *Sophist* 256d-e that Change (and each of the other Great Kinds) is not, because it is not Being, that is it is different from Being. 257a argues that if there is something that Being is not then Being is not.

Similarly it is argued in the *Parmenides* that if *a* is not then *a* is something, namely a non-being, and thus is.[28] (This is essentially Gorgias's argument.) Consequently, Not-Being (in the relative sense), far from being an empty name, is pervasive.[29] But not-to-be, in the relative sense, is not the same as not to-be. Accordingly, Plato can consistently maintain that both Being and Not-Being are pervasive. They coexist in each one of the Forms.

4 Aristotle

Aristotle does not take up Plato's distinction between absolute and relative Not-Being: for him, '*a* is not' is simply the contradictory of '*a* is,' and there is no sense in which '*a* is not' implies '*a* is.' Nor does he subscribe to the Platonic thesis that both Being and Not-Being are pervasive (depending on the sense that is attached to 'Not-Being'). However, like Parmenides and Plato, he does recognize a distinction between ordinary language and a higher language that is capable of expressing true knowledge. In Aristotle's case, this higher language contains the *kath' hauto* terms that pick out the species in each of the Categories.

Aristotle holds the unique position in ancient Greek thought, that neither Being nor Not-Being is pervasive. Something is, and something is-not. Thus Aristotle's ontology is formally parallel with Meinong's, according to which some Objects have Being and some do not.

In *Sophistical Refutations* 5, Aristotle distinguishes being-something from just being.

> … it is not the same thing to-be-something and just to-be …[30]

(The point was later revived by Meinong in his principle of the independence of Sosein from Sein.) Now, there is no reason to suppose that Aristotle would disagree with the principle stated by the Stranger in the *Sophist* that 'when a thing exists … something else that exists may be attributed to it,'[31] that is, that being involves being something. But the Stranger also espouses the converse principle that 'it is not justifiable or correct to set about attaching something that exists to the non-existent,'[32] that is, that being-something involves being. It is this claim that Aristotle rejects. He is saying that it is possible for an item to be-something but not to-be. He does not, however, give any example where an item is-something but is-not. Be that as it may. The claim that it is possible for an item to be-something but not to-be commits him to saying that it is possible for an item not to-be. In other words, Aristotle is committed to denying that it is a necessary truth that Being is pervasive.

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[27] *Sophist* 255e, 256e.
[28] 162a–b. Cf. *Sophist* 254d, 256d–e, 258b–c.
[29] *Sophist* 258e–259a.
[30] *Sophistical Refutations* 5, 167a1–2.
[31] *Sophist* 238a (Cornford translation).
[32] *Sophist* 238c (Cornford translation). Cf. 238a and *Parmenides* 164a.

It was possible for Plato to posit an absolute sense of Not-Being, and to hold that Not-Being in this sense is pervasive, only because he took sentences of the form '*a* is-not' as predicating Not-Being of a subject *a*. This Aristotle does not accept. For him, there is a fundamental distinction between affirmations and denials, and sentences like '*a* is-not' are not affirmations but denials.

De Interpretatione 3 outlines this doctrine:

> 'Does not recover' or 'does not ail' I do not call verbs. For though they additionally signify time and always hold of something, yet there is a difference – for which there is no name. Let us call them indefinite verbs, because they hold indifferently of anything, whether it is or it is not.[33]

The contrast is with genuine verbs such as 'recovers' and 'ails,' which apply only to what-is. Aristotle's view, it seems, is that genuine verbs apply only to what-is, whereas indefinite verbs apply also to what-is-not. More than that, Aristotle's view, as stated in *Categories* 10, is that if *a* is not, then *a* neither ails nor recovers:

> … neither 'Socrates is sick' nor 'Socrates is well' will be true if Socrates himself does not exist at all.[34]

But what is a genuine verb? One simple interpretation aligns genuine verbs with affirmations, and indefinite verbs with denials. According to this simple interpretation, Aristotle means that every affirmation implies that its subject is, whereas denials do not carry this implication. This interpretation would fit with one of the standard interpretations of Aristotle's logic, according to which both universal and particular affirmations have existential import – in the sense that the proposition 'Every (some) *a* is a *b*' implies that there are *a*s – whereas the universal and particular denials 'No (not every) *a* is a *b*' carry no such implication.

I believe that Aristotle's position is a little more complicated than this. He does not think that all affirmations imply the being of their subjects. Aristotle's general position seems to be that, to tell what being-commitments are carried by a predication, one has to consider the predication's sense not just its form. Affirmations as well as denials can be true of non-beings. At least two types of affirmation are compatible with the non-being of their subjects.

First, there are *intentional* predicates such as 'is thinkable.' In a comment that is reminiscent of Gorgias's statement that 'many non-beings are thought,' Aristotle points out that the thinkable extends beyond what-is.

> … 'thinkable' can be affirmed of what-is-not, given that many things that are thinkable are-not …[35]

According to this text, the proposition 'What-is-not is thinkable [*doxaston*]' is true. Since Aristotle asserts this proposition, he is committed to denying the pervasiveness of Being. For, the proposition implies that something thinkable is-not, and thus that something is-not.

In *Prior Analytics* I.38, Aristotle considers another intentional predicate, 'is knowable' [*episteton*]. He claims that there is knowledge of the goat-stag, even though this creature is a non-being. Here it is said to be not only true but demonstrable that the goat-stag is, as a non-being, an object of knowledge. The conclusion of such a demonstration would take the form:

> … the goat-stag is knowable in so far as it is-not …[36]

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[33] *Int.* 3, 16b11–15 (Ackrill translation modified).
[34] 13b18–19 (Ackrill translation).
[35] *Top.* IV.1, 121a22–4.
[36] *APo.* I.38, 49a23–4.

Of the goat-stag there is knowledge that it is a non-being. This is taken by Aristotle to be a true proposition about a non-being, the goat-stag. If it is a true proposition, then since knowledge is only of truths, the proposition 'The goat-stag is a non-being' is itself true, though it is about that same non-being, the goat-stag. If so, then it seems that according to Aristotle there are non-beings. Being is not pervasive, and the goat-stag is an instance of something that lacks Being.

Again, in *Physics* IV.12, Aristotle is happy to name what-is-not. And the context makes it clear that this name applies *inter alia* to what is not the case:

> It is manifest, therefore, that not everything that is not will be in time either; for example, all the things that cannot be otherwise … like the diagonal's being commensurate with the side.[37]

A second group of affirmations that call into question the pervasiveness of Being involve predications that are *implicitly tensed*. To say of an animal that it is dead is to say that it *was* but is no more. *De Interpretatione* 11 discusses another example – the being of Homer's poetry and of Homer.

> For example, Homer is something (say, a poet). Does it follow that he is? No, for the 'is' is predicated accidentally [*kata symbebekos*] of Homer; for it is because he is a poet, not in its own right [*kath' hauto*], that the 'is' is predicated of Homer.[38]

The suggestion here is that because the 'is' in 'Homer is a poet' is accidental, it is possible that, while Homer is a poet, Homer is-not. If so, it is possible that Homer is-not. (Possible? Are we in doubt? Surely Homer is no more, and thus is-not!) But if Homer is-not then something is-not, and so Being is not pervasive.

The tensed character of the predicate 'is a poet' can be explained as follows. To be a poet is to have authored a poem. To have been a poet, therefore, is to be a poet, since if it has been the case that one has authored a poem then it is the case that one has authored a poem. So a dead poet is a poet, even though a dead man is not a man. This explains how it can be that, while Homer is a poet, Homer is-not.

For this, and other, reasons it is clear that Aristotle rejects the Pervasiveness of Being. Some things, for instance the goat-stag, the diagonal's commensurability, and Homer, are not beings. And there are true affirmations about these non-beings. So we have to abandon the simple interpretation according to which Aristotle holds that, while denials can concern what-is-not, affirmations concern only what-is. At the same time, we can agree that for Aristotle affirmations have existential import and denials do not, provided that we distinguish having existential import from implying the subject's being. What the existential import of affirmations amounts to is that such propositions imply that *something* is a member of the subject-class, but not that that something is a being.

One further interesting thing about Aristotle's position on the pervasiveness of Being is that his examples are all drawn from ordinary language. 'Thinkable,' 'knowable,' 'goat-stag,' 'does not recover' and 'Homer' are none of them names of species. Within the Aristotelian language of science, there is no objection to the pervasiveness of Being.

5 Summary

For Parmenides, the class of what-is is universal and the class of what-is-not is null. For Plato *both* what-is and what-is-not are the universal class. For Aristotle, *neither* what-is nor what-is-

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[37] *Ph.* IV.12, 221b23–5 (Hussey translation).

[38] *Int.* 11, 21a25–8 (Ackrill translation).

not is universal: some things are-not, but not everything is-not. Gorgias's official position is that what-is-not is universal, and what-is null; but in his attempt to prove this, he proves that what-is is universal.

Thus, our four ontologists adopt four different positions regarding the extent of what-is-not and what-is. Each of these positions is internally consistent, except that of Gorgias. The extent to which these various positions are really in conflict with one another is lessened by the fact that they do not all have the same subject-matter. Parmenides and Plato are talking about the higher language of knowledge and reality, Gorgias and Aristotle about ordinary language.

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Chapter 21

Three Philosophers Look at the Stars*

Sarah Broadie

The philosophers are Plato, Aristotle, and Theophrastus, but the concerns are old and familiar ones. A fascination with the stars, their orderly movement and nature, is a conspicuous feature of early Greek philosophy, beginning with Thales himself (see S. White, this volume). So, too, is the preoccupation with first principles, the origins or starting points which govern all subsequent development. For Aristotle, these issues run together, since the only eternal first principles he recognizes are the beings that move the heavenly spheres. But for Theophrastus, this raises a question about the connection of those principles with the sublunary realm, and consequently about the unity of the cosmos. This will become clearer below, when we compare Aristotle's cosmology with Plato's.

Meanwhile, we begin with Theophrastus, joining him for the first few pages of his *Metaphysics*.[1] Our focus will be on the passage 5b10–26, but let us place this in context first.

Theophrastus opens the *Metaphysics* with the question 'How and by what criteria (*πῶς καὶ ποίοις*) should we mark off the study of first things (*ἀφορίσαι τὰ πρῶτα*)?' (4a2–3) The next line shows that he means: 'mark off from natural science.' He briefly adduces some recognized criteria (*ὥς γε δή τινές φασιν*, 4; *τιθέασιν*, 7; *νομίζουσιν*, 9), viz.:

(i) The study of first things, by comparison with natural science, is simple, definite and unchanging.[2]

Consequently:

(ii) its subject matter belongs amongst objects of intellect rather than sense.

And

(iii) in general, the study of first things is more sublime and grander (2–9; *σεμνοτέραν καὶ μείζω*).

Theophrastus now launches his own response to the opening question, a response which, with ramifications, constitutes the bulk of the *Metaphysics*. He begins with a query:

> Our starting-point is the question whether there is some sort of connection (*συναφή τις*) and as it were a mutual partnership (*οἷον κοινωνία*) between intelligibles and natural objects, or whether there is none, but the two are, so to speak, separated (*κεχωρισμένα*) though they somehow cooperate (*συνεργοῦντα δέ πως*) to make up the whole of reality (4a9–13).[3]

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* It is a pleasure to dedicate this essay to my friend Alex Mourelatos, philosopher, scholar, and star-gazer.

[1] On the ascription of the work to Theophrastus (which goes back to Nicolaus of Damascus, first century BCE), see Ross and Fobes, 1929, pp. ix–x; Laks and Most, 1993, pp. ix–xviii; van Raalte, 1993, pp. 7–11. All references here to Theophrastus are to this work.

[2] Here and elsewhere in the *Metaph*. Theophrastus extends to the science an attribute of its objects.

[3] Here and elsewhere, translations from the *Metaph*. are based on that of Ross in Ross and Fobes, 1929.

Unlike most of the questions raised in Theophrastus' *Metaphysics*, this one receives an immediate answer:

> Well, it is more reasonable (εὐλογώτερον) to assume that there *is* some kind of connection (συναφή τις) and that the universe is not a mere series of episodes (μὴ ἐπεισοδιώδες τὸ πᾶν),[4] but some things are, so to speak, prior and others posterior – some, ruling principles (ἀρχὰς) and others subordinate to the principles, just as eternal things are prior to perishables (13–17).

We have here a further requirement distinguishing the study of first things:

(iv) it must exhibit its objects as principles to which natural objects are subordinate.[5]

The new requirement[6] eliminates pure mathematics, or any branch of it, as a possible candidate for the study of first things. For we cannot see how mathematicals (even if they are extra-mental, which is doubtful) could be the sources of the life and movement of physical things (4a18–b5).[7] So given that there are first things, and that they are intelligible,[8] there must be intelligibles other than and superior to the objects of mathematics.

Granted their status as principles, it is reasonable to accept two further criteria for first things: they belong among (or, perhaps: consist in) entities that are

(v) few in number (that is, it is of their nature to be few)

and

(vi) out of the ordinary (περιττά, 4b8–10).

Expatiating on (vi), Theophrastus says that no doubt we ought to identify what is first (singular or plural) by some relation of power and superiority in which it stands (they stand) to other things – 'as if we were trying to identify God' (15). He now gives the following justification for bringing God into the account: 'for the ruling principle of all things, through which all things both are and endure, *is* divine' (15–16).

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[4] Cf. Aristotle, *Metaph.* XII.10, 1076a1; XIV.3, 1090b19.

[5] Laks and Most, 1993, p. xxv, are surely correct in seeing the theme of συναφή as the 'scarlet thread' running through the work. But it is a mistake to build this in from the very beginning by translating, with Ross, τὰ πρῶτα at 4a5 as 'first principles' (Ross and Fobes, 1929, p. 3). (On this interpretation, being a principle is not a *mark* of a πρῶτον, and thereby of the subject matter of the study of τὰ πρῶτα.) However, one may wonder what can be meant by 'τὰ πρῶτα' in a philosophical context if not 'elements' or 'first principles.' I would suggest that here it initially means no more than 'the objects of πρώτη φιλοσοφία, whatever they turn out to be.' Even in the Aristotelian context it was not always a truism that the first (that is, more or less, the most venerable) branch of philosophy, or σοφία, studies principles of everything; for then Aristotle would not have had to lay the matter out so carefully in *Metaph.* I.1–2. And see his report on Speusippus at VII.2, 1028b21–4. For Speusippus, presumably, some kind of number theory was first philosophy whether or not it supplied any principles of everything.

[6] This and the following requirements mark off the study of first things by marking off its subject matter. Obviously the first three criteria can also be expressed in this way; see note 2.

[7] Here and elsewhere in the *Metaph.* Theophrastus assumes that the relation of a natural substance to its natural movement (and life, where relevant) is so close that 'principle of the movement' is synonymous with 'principle of the substance.'

[8] Theophrastus seems to take intelligibility for granted in substituting the question at 4a9–11 for the opening question about first things.

This equation of what is first with God or divinity has two results: it satisfies criteria (iii) and (vi) (if indeed they are distinct), and it brings out a presumption which was not clear before. What is first is not merely an intelligible intelligibly related to natural, sensible, things (as laid down by (ii) and (iv)). It is also

(vii) the principle of *all* natural, sensible things.

Theophrastus now highlights *being in motion* as the essential property (τὸ ἴδιον) of natural and sensible things (18–21), and by means of this motif proceeds to bring requirements (i) and (iv) together in a way that sharpens and justifies (iii) and (vi): 'Since [the first principle] is in itself unmovable, it is evident that it could not be by being moved that it serves as cause to the things of nature, and the only alternative is that it should be by some other power superior and prior to this' (4b22–5a2).

What would such a power be? His answer: 'Such is the nature of the desirable (ἡ τοῦ ὀρεκτοῦ φύσις) from which proceeds the circular movement which is continuous and unceasing' (4b18–5a5). He is referring, of course, to the movement of the heavens as explained by Aristotle in *Metaphysics* XII.7, where the Mover is divine and moves as object of desire.[9]

Theophrastus remarks that the account so far fits together well (ἄρτιος ὁ λόγος),[10] and perhaps because someone might think that a Mover like that of XII.7 explains only celestial motion, he particularly praises the theory for postulating a single principle for everything (5a6–7). He then proceeds to the problems which take up the rest of his *Metaphysics*, beginning with a series of questions about the connection between celestial rotation and desire.

Our focal passage occurs here:

> And perhaps one might ask this question also, why the rotating bodies alone have impulse (ἔφεσις [= desire for the unmoved mover]), and none of those about the center of the universe have it, though they are subject to movement: is it because they are incapable or because the power of what is First (τὸ πρῶτον) does not penetrate to them? But this, at any rate, would be absurd, if it implied weakness; for one would expect the First to be stronger than Homer's Zeus, who says
>
> I could pull you up, earth, sea, and all.[11]
>
> But the only alternative is that the center should be as it were something irreceptive and cut off (ἀσύνδετον).[12] Perhaps, however, one might first inquire about the status of things at the center, whether they are or are not parts of the universe (οὐρανός),[13] and, if they are parts, in what way they are so; for in this account they are as it were thrust apart from the things of highest worth not only in spatial position, but also in their activity, if the rotation is the highest activity; for they acquire as it were by accident under the influence of the rotation their changes both into their own places and into one another (5b10–26).

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[9] See below on the dating of Theophrastus' *Metaph.* vis à vis Book XII.

[10] That is, Aristotle's account of the Mover(s) in Book XII fits Theophrastus' criteria for being πρῶτον.

[11] *Iliad* 8.24. Theophrastus may be intentionally echoing *MA* 4, 699b35–700a1, where Aristotle quotes lines 21, 22 and 20, in that order. (Cf. van Raalte, 1993, pp. 226–8. Most, 1988, however, places *MA* after Theophrastus' *Metaph.*) The *MA* point is that the origin of movement in the cosmos must be immovable and not a part of it. Zeus' power to pull up everything else proves not only the dependence of everything else on him, but his absolute immobility; in the tug of war with the golden rope, the totality of everything else, including the other gods and the goddesses, cannot make Zeus budge. It is interesting that Aristotle's excerpt mentions only gods and goddesses at the other end of the rope (that is, Theophrastus might think, the sun, moon, and planets), and not earth and sea (sublunary nature; cf. van Raalte, 1993, p. 226).

[12] ἀσύνδετον, Usener's second conjecture, is confirmed by the Arabic translation of Ishaq (9th–10th C.). The MSS have ἀσύνθετον. Usener first conjectured ἀσύνετον, which is printed by Ross and Fobes, 1929.

[13] More precisely, the question is whether they are parts of the *ouranos* in the sense of 'universe considered from the heavens on in.'

Now, how do the doubts and queries of this passage touch Aristotle's views? At first sight they seem to miss their mark, unless they are aimed at someone else's position. But in fact, as I shall argue, Theophrastus here points to a crucial and almost completely unnoticed difficulty in Book XII's metaphysical cosmology. As we shall see, there are two metaphysical cosmologies in *Metaphysics* XII. One (ch. 6) postulates a pair of eternal motions, each with its unmoved mover, for the fixed stars and the sun in the ecliptic (corresponding, respectively, to eternal being and endless succession of becoming, as in *Ph.* VIII.6, *Cael.* II.3 and *GC* II.10–11); the other (ch. 8) postulates as many spheres and movers as are held to be necessary to account satisfactorily for the observed motions of all the heavenly bodies. I am assuming that when Theophrastus composed his *Metaphysics* he was familiar with some version of Aristotle's response to the astronomical problem tackled in Chapter 8. It is unimportant for present purposes whether at that stage Theophrastus knew of Callippus' contribution and of Aristotle's own final calculation in XII.8 as it has come down to us.[14] For my main contention here is that Theophrastus' objection in the focal passage applies to the general approach which XII.8 represents. That type of approach (astronomical, including the planets) is inconsistent with the more truly metaphysical (and physical) one of XII.6, no matter how one calculates the number of spheres needed for planets, sun, and moon.[15]

In the focal passage, Theophrastus assumes that, according to the theory under discussion, (1) only the celestial spheres are motivated by desire for the divine; and that this is either because (2) sublunary beings are 'incapable' (that is, incapable of responding to what is First), or because (3) they are too remote for the First's attraction to reach them. But if (3) is true, this is either because (4) the First is too weak, or because (5) the center of the universe is by nature irresponsive to such a principle and therefore unconnected with it. Since (4) is absurd, (5) is the only possibility left.[16] This forces us to ask (6) whether sublunary things are parts of the cosmos at all, and (7) in what way they are, if they are. For on the theory under consideration, (8) they and the celestial spheres are separated by an unbridgeable distance, not only of space but in the dignity of their respective activities[17] (assuming that the spheres' rotation is indeed something sublime).[18] For (9) it is only by accident that the sublunary things owe their natural movements and transformations to celestial rotation.

Proposition (1) should be charitably interpreted as saying that only in the case of the celestial spheres is desire for the divine the sole and complete explanation for the entirety of their

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[14] For summaries and discussions of views on the relative dates of Theophastus's *Metaph.* and relevant parts of the Aristotelian corpus, see Devereux, 1988; Laks and Most, 1993, pp. xx–xxi; van Raalte, 1993, pp. 24–5.

[15] The inconsistency is obvious if, as is natural, one takes 'other' in the last sentence of 6, 'So why need one seek other principles?' (1072a 18) to mean 'other than the two just mentioned.' (The celestial cycles, and therefore the movers, have just been proved to be no more than two; 1072a9–18.) Ross, 1953, *ad loc.*, vol. II, p. 372, says that 'other principles' means 'like the Platonic Ideas' – last mentioned forty lines back. But even if Ross is right about this, the general inconsistency remains. Many commentators ignore it because, for later theological reasons, Aristotle's recognition of many, as distinct from one, immaterial movers is much more important to them than his recognition in Chapter 8 of (something like) twenty-six (Eudoxus), thirty-three (Callippus) or fifty-five (Aristotle), as distinct from two as per Chapter 6. The many-versus-one issue creates a perspective in which Chapters 6 and 8 are indiscriminately contrasted with Chapter 7, which speaks only of the mover of the first heaven.

[16] Because (5) = (2). Thanks to Marlein van Raalte for clarification of this argument.

[17] It is not clear whether the lesser worth of sublunary activities is alleged as a reason for denying outright that their subjects are parts of the cosmos (although spatially situated in it, they are out of touch with its principles, hence constitute a different and insubstantial world reminiscent of Hades), or as a reason why, though parts, they are not governed by the First(s).

[18] At 5b1–10 Theophrastus questions the assumption that celestial rotation is the best motion. It is not clear that it is superior to psychic movements, which sublunary beings share.

behavior. For a literal reading has the disadvantage of making Theophrastus dismiss without argument the Aristotelian doctrine, long familiar from Plato's *Symposium*, that plants and animals do reach out (*ὀρέγεται*) to the eternal through reproduction (*DA* II.4, 415a27–b9; cf. *Smp.* 207d–208b; *EN* VII.13, 1153b25–32). In fact, Aristotle generalizes the thought: 'all that they do that is in accordance with nature, they do for the sake of [the divine]' (415b1–2). However, the reproductive and other vital activities of mortal species constitute the lives of individuals which, in reaching out to the divine, also (and, it might be thought, more immediately) seek to unite themselves in one way or another with concrete objects in the physical environment. Only the celestial spheres achieve no physical advantage for themselves by their motion (cf. *τὸ ἀνήνυτον*, Theophrastus, 5a17).[19] Even if mortal organisms are always aspiring to the divine *in* doing what they must to meet their own ever-changing biological requirements, the spheres, being free from such concerns, engage in a motion that is pure homage. It is reasonable, then, to think of the heavens as peculiarly dedicated to manifesting the power and goodness of God. On such a view, astronomy indeed, as Aristotle says at XII.8, 1073b4–5, is the branch of mathematical science closest to philosophy, that is, 'first philosophy' or the study of first principles.[20] In fact it would not be going too far to claim that once metaphysical argument has established the basic necessity of an eternal unmoved motive principle, astronomy actually takes over part of the work of first philosophy. For such questions as the precise number of first principles, and their ranking *vis à vis* one another, seem to belong to first philosophy,[21] and yet they are astronomical questions, since their solutions can only be reached by studying the celestial phenomena which show the first principles at work.

Let all this be granted, but how would it follow, as Theophrastus thinks it does, that the sublunary world is entirely cut off from causal connection with *τὰ πρῶτα*, and so is not really part of the same universe? He writes as if we are asking too much of *τὰ πρῶτα* if we characterize them *both* as 'the object(s) of desire, from which proceeds the circular movement which is continuous and everlasting' (5a2–4), *and* as principles of the whole of nature; or as if sublunary things are not related to *τὰ πρῶτα* at all unless by the same relation as the celestial spheres. Thus he casts doubt on Aristotle's great conclusion in XII.7: 'So from such a principle [that is, as the preceding lines show, one that is necessarily existent and source of circular motion] depend the heavens *and* the world of nature' (*ὁ οὐρανὸς καὶ ἡ φύσις*; 1072b13–14; the contrast corresponds to that between *φυσική* and mathematics, which here includes astronomy).[22] But what is Theophrastus' justification?

The question presses because Theophrastus' probing is so evidently not polemical. Assuming that it is one of the strengths of Aristotle's account to allow for different modes of dependence, direct and indirect, on *τὰ πρῶτα*, we might have expected Theophrastus to make the most of this strength in his search for a theory that exhibits *τὰ πρῶτα* as principles of everything. Similarly, we might have expected him to look favorably on the idea that regular sublunary changes are at least *per accidens* effects of the celestial rotation (5b24), whereas in fact he dismisses this as if what it offers is no better than no connection at all.[23] Why is he not more willing to exploit on Aristotle's behalf the theoretical potential of indirect and *per accidens* connections? This is especially surprising since Theophrastus has said that he is open to a variety of ways of conceiving the first principles, which presumably covers different ways of

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[19] However, as M. Frede pointed out in correspondence, the spheres do owe their characteristic motion to their reaching out to the divine. Still, the motion, however admirable, is not an advantage that accrues to some base, since the life of each sphere completely consists in its one simple motion.

[20] For *φιλοσοφία* = *πρώτη φιλοσοφία*, cf. XI.3, 1061b5; 4, 1061b25.

[21] The competing first philosophy ought to be able to deal with the 'How many?' question, but cannot. Cf. XII.8, 1073a14–22; XIII.8, 1084a10–17.

[22] See also *Mete.* I.2, on the universal influence of the prime mover.

[23] *λαμβάνει οἷον κατὰ συμβεβηκός* is given as a reason for *νῦν … οἷον ἀπεωσμένα κτλ.*, 21–3.

conceiving their principlehood, that is their mode of connection with the rest (*ἀμῶς γέ πως εἴτε κατ' ἀναλογίαν εἴτε κατ' ἄλλην ὁμοίωσιν;* 4b12–13).

Let us see how far Aristotle himself gets with such connections. For him, the sublunary realm and the realm of first principles are linked through the annual and diurnal movements of the sun. On the one hand, the sun's perpetual motion reflects a non-temporal series of celestial desirings (one for each of the spheres whose rotations explain its observed passage) directed towards the corresponding immaterial unmoved objects of love, including, of course, the ultimate one which moves the all-inclusive sphere of fixed stars. On the other hand, the sun's movement in the ecliptic accounts for the cyclic transformations of the four sublunary elements, and for the regular variations of seasons and climatic conditions on and around the earth. These changes constitute necessary conditions for the cycles of birth, growth, decline, and death in mortal living creatures. Aristotle alludes to this work of the sun twice in Book XII, at 5, 1071a15–16 and at 6, 1072a10 ff. (The fullest statement is in *GC* II.10–11; see also *Cael.* II.3 and *Ph.* VIII.6, 259b32–260a 19).[24] Leaving aside for a moment the contribution of biological forms, the *complexity* of these cycles and their stages is due to the sun's action on the elements and their mixtures, while their *endless repetition* ultimately reflects the same supreme source of on-going sameness as do the simple movements of the spheres.

In this account, the movements of the sun and the outermost sphere provide the framework for sublunary coming to be, being, and passing away; but neither they nor their unmoved movers determine the natures of generated substances. Even if each mortal kind represents a different concrete way of attempting to participate in the eternal (cf. *EN* VII.13, 1153b30–33), there is nothing about the eternal as Aristotle understands it, whether movers or spheres, that explains why *these* mortal kinds are instantiated. Inevitably, then, a vast range of sublunary phenomena are in a sense accidental effects of the sun, and Aristotle presumably saw this and accepted it. Although his final remarks in Book XII about the unity and interconnection of the universe optimistically declare what he would like to be true rather than show exactly how it could be, his general analysis of causal relations is, one would think, sufficiently refined to permit the dependence of sublunary change on the sun to count as a genuine connection, involving in the first place the sun itself and then, through it, higher echelons of the celestial system with all requisite movers.

We must, however, make more distinctions. It would be one thing to regard it as accidental in relation to the sun that the sublunary species are as they are, and another to regard it as accidental that the sun presides over any sublunary changes at all. Again, it would be one thing to hold that *A* and *B* are both parts of one system when the main problem for the claim is that the precise nature of the uniting relationship is not yet clear, and another to hold this while acknowledging that *A* belongs to a species of beings which typically stand in no physical relation at all to the likes of *B*. Theophrastus would be heavy handed, even perverse, if he directed the objections of our focal passage against the more moderate of these positions (the first member of each pair). But while Aristotle does not speak with a single voice in this area, one clear strain of his thought commits him to the second members. Theophrastus is surely right to view this as an embarrassment.

If we listen to the problematic strain, what we hear implies (as will presently be explained) that while sublunary kinds are essentially subject to regular changes brought on by the cycles of the sun, it is not of the essence of the sun to be a source of sublunary change. Like mixed material composition,[25] dependence on the sun, or on something sun-like, is a hallmark of

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[24] See also *HA* VII.2, 582a35–b4 and *GA* II.4, 738a16–21; IV.10, 777b16–778a1 on the effects of the moon.

[25] This point also covers the qualitative complexity of the sublunary simple bodies, which permits their intertransformation.

mortal substance as such. By contrast, the sun's power over mortals (even when the mortals are conceived of in very general terms) says nothing about the essence or rationale of the sun itself, that astronomical entity, or of the spheres which account for its motion.

However, before developing this theme further, let us first register the fact that in a number of places Aristotle takes virtually the opposite view.

Under this head, the outstanding passage is *Cael.* II.3, where, trusting completely to *a priori* reasoning, he shows why there must be more than one celestial rotation: that is, why that of the fixed stars is not by itself sufficient. The elegant argument explains not only (1) the *raison d'être* of the sun (its movement, which is the additional one, is necessary for the generation and perishing of the four sublunary simple bodies), but also (2) why generation and perishing are necessary for these bodies; (3) why these bodies, beginning with earth, must exist at all, given that a rotating heaven exists; and (4) why a rotating heaven must exist. Here is a scheme whose elements are as closely and rationally connected as Theophrastus could possibly desire. In particular, the movement of the sun is presented as being hypothetically necessary (*per se*, moreover) for the cycle of generation, and even, as it were (so Theophrastus might say), as occurring for the sake of it. See also *GC* II.10, 336b1; *Ph.* VIII.6, 261a1–3; and, most strikingly, *Metaph.* XII.6, 1072a10–12, for the sun as hypothetically necessary. And the thought that it is of the essence of the sun to preside over generation is further conveyed by the title 'the generator' (*τὸ γεννητικόν*), which Aristotle uses at *GC* II.10, 336a18 (echoed by Theophrastus at 7b5). Generators stand in no accidental relation to what they generate, or to their generative function.[26] (It is not the sun, but the *circling* sun, that is generator; the offspring ['imitations'] are sublunary cycles of change; *GC* II.10, 337a1–7 and 11, 338b2–5.)[27]

We must return to Aristotle's contrary stance on this question, the one which, it was claimed above, makes him fair target for Theophrastus' criticism in the focal passage. A short detour via the *Timaeus* will help explicate it.

In the *Timaeus*, sun, moon and planets constitute by their revolutions countable *χρόνος*, which imitates eternity in the unlikely medium of motion. Those heavenly bodies were created – *χρόνος* was created – in order that the begotten universe, which came to be 'as a shrine for the everlasting gods' (37c7), should better approximate its eternal model (37c6–39e2). While this alone seems intended as a sufficient explanation, well grounded on God's principle of 'wanting everything to be good' (30a2–3), at moments we catch sight of an additional reason: the visible temporal array was created for educational purposes:

> And so that there might be a conspicuous measure of their relative slowness and quickness with which they move along in their eight revolutions, the god kindled a light in the orbit second from the earth, the light we now call the Sun. Its chief work would be to shine upon the whole universe and to bestow a share in number upon the living beings suited for it, those which gain understanding from the revolution of the Same and the uniform. In this way and for these reasons night-and-day, the period of a single circling, the wisest one, came to be (39b2–c2).[28]

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[26] Cf. *Cael.* II.3, 286a8.

[27] The doctrine that the sun's heat is due to friction generated by its fast motion scraping the edge of the sublunary world (*Mete.* I, 3; *Cael.* II.7) can be interpreted in two ways: (1) The friction is the means, as it were 'ordered to the end,' by which the generator accomplishes his task. (2) It is irrelevant to the nature of the sun considered as a celestial body that it is juxtaposed to sublunary matter which is disturbed by it in a certain way when it passes. On this view, the heat is of, or from, the sun only in the way in which a bird's song is of or from the sun as it awakes the bird. (The friction theory, even on this interpretation, is impossible to combine with an astronomical account such as that of *Metaph.* XII.8, if, as Aristotle seems to imply there, the spheres are physical entities. For then the sublunary world is closed off from the spheres of the sun by those of the moon.)

[28] With a few changes this is the translation of D. Zeyl, 1997, in *Plato, Complete Works*, J. Cooper and D. Hutchinson (eds), Indianapolis: Hackett.

The sun's twenty-four-hour circling is 'wisest' (φρονιμωτάτη) no doubt because this is the revolution of the circle of the Same, whose prerogative is understanding and knowledge (*Ti.* 37c1–3), but perhaps also because it is the beginning of arithmetical wisdom for rational souls lost and bewildered in mortal bodies. We play our part in perfecting the universe by learning to 'stabilize the straying revolutions within ourselves by imitating the completely unstraying revolutions of the god' (47c2–3). This learning starts when humans begin to use their eyes for *the* purpose for which vision was devised: 'The god invented sight and gave it to us so that we might observe the orbits of intelligence in the universe and apply them to the revolutions of our own understanding' (47b6–8, and see the whole passage from 46e7). For as we absorb the visible orbits, we too begin to partake of the flawless calculations by which the heavenly bodies keep perfect track of themselves (47c1–4). But for creatures like us to start on this path to salvation, the first lesson in the science of pattern in repetition must be of black-and-white simplicity and impossible to ignore. This is the daily lesson of the sun.

Apart from providing this cognitive benefit, it is as if the sun has no special or peculiar responsibility for events in the sublunary world, so far as the official cosmology of the *Timaeus* is concerned.[29] Not a word in it about the sun's regular contributions to weather, seasons, or biological cycles.[30] All these are due to Necessity, whereas the heavenly bodies represent Reason. And this silence is hardly surprising if the sun in the cosmos once constituted is just one – the most conspicuous to us – of the 'instruments of time' (42d). The 'instruments'

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[29] 41a7 ff. implies that all the created gods, hence all the astronomical ones, share in fabricating the mortal living kinds, and that this task is in accordance with their nature (41c4). However, none of them is ascribed a special or leading role in the work. Plato presents the origin of mortal species and their parts, but has virtually nothing to say about their life-cycles, which is where the sun (in one of the Aristotelian accounts) makes its signal contribution. It is as if the non-astronomical deities sink out of view once the cosmos is complete with respect to its kinds, while the astronomical ones from then on operate only as 'instruments of time'. This note draws on comments by M.F.Burnyeat.

[30] The mention at 22d of 'a deviation in the heavenly bodies that travel around the earth, which cause huge fires and so on' occurs in Critias's introductory report of the Atlantis story: in other words, it is part of what purports to be a discourse repeated to Critias (when he was a child) by his grandfather, who got it from his, who got it from Solon, who got it from an Egyptian priest. The annual movement of the sun, which is the important celestial motion from the present point of view, is barely mentioned in the body of the *Timaeus* (39c). Remarkably, the authentic dialogues make no doctrinally deliberate statement about the sun's physical effects on earth. The only relevant passages are *R.* VI.506c8–509d4 (sun as perceptible analogue of The Good); *Cra.* 408e5–409a5 (Heraclitean etymology: ἥλιος is so called perhaps because it 'ποικίλλει [causes variety] in the things that come to be from the earth – τὸ δὲ ποικίλλειν καὶ αἰολεῖν ταὐτόν'); *Tht.* 153c–d (fanciful identification, as per Protagoras' 'secret doctrine,' of sun with Homer's golden rope; see above, note 11). The Platonic definitions of the sun likewise say nothing of its physical effects on earth (*Def.* 411a). The *Epinomis*, too, is almost silent on this subject: strangely, since it has a few words on terrestrial changes due to the moon (979a–b). A. P. Bos, 1976, adduces *R.* 509b to show that for Plato the sun governs biological changes on earth; however, Bos misplaces the emphasis, writing: 'Plato had already [that is, before the *Timaeus*] ascribed to the sun a dominant role in visible nature similar to that of the Idea of the Good in the world of Ideas' (pp. 19–20), as if the Idea of the Good were invoked to explicate the sun. In explicating, as in fact he does, the relation of The Good to the other Forms by analogy with the sun's relation to things on earth (they owe the sun their perceptibility and their genesis), Plato is not theorizing about the sun, but exploiting pre-reflective experience. On the other hand, the assertion that the sun is the offspring of The Good (506e3; 507a3; 508b12–13) is, of course, doctrinal. This goes beyond the illustrative analogy itself, being intended to explain why the analogy holds. (It is by inherited nature that the sun stands to things on earth as its parent to the intelligibles.) As offspring of The Good the sun is unique, and this fits badly with its Timaean role as one of many instruments of time. The discrepancy worried Plutarch (*Platonic Questions*, 8.4). It is already foreshadowed in the *Republic* itself, since the Spindle of Necessity in Book X has the sun as one element amongst others (616d6–617b4).

constitute a single system, and mathematical astronomy treats them impartially. Problems raised in this science about any of them should be raised and solved in terms suitable to a uniform account of them all.

This is the perspective of *Timaeus*, *Laws* and *Epinomis*, and of Eudoxus, Callippus and Aristotle himself in *Metaph.* XII.8. The sun is just one astronomical object among others. If it belongs to the nature of the sun to cause certain regular changes on earth, one would expect something similar to be true even for the planets;[31] but nothing short of astrology can satisfy that expectation. The alternative is to water down the causal connection into something accidental: *all* the heavenly bodies (or their spheres) in themselves are as causally remote from us as, say, Saturn and Mercury.[32] That might make sense if we were willing to accept the following speculation of Theophrastus:

> … to be in motion is at any rate proper (οἰκεῖον) both to nature in general and to the celestial system in particular. Hence also, if activity is of the essence of each natural object, and a particular thing when it is active is also in movement, as in the case of animals and plants (which if they are not in movement are animals and plants only in name), it is clear that the celestial system also in its rotation is in accordance with its essence, and if it were divorced from this and were at rest it would be a celestial system only in name; for the rotation is a sort of life of the universe. *Surely, then, if the life in animals does not need explanation or is to be explained only in this way, may it not be the case that in the heavens too, and in the heavenly bodies, movement does not need explanation or is to be explained in a special way* (τρόπον τινὰ ἀφωρισμένον)?[33] (10a9–19; emphasis added)[34]

That the sun[35] affects things on earth only *per accidens* is just what we should expect if the sun and its congeners (or their spheres) are, as it were, just another kind of animal. But any move in this direction must shake previous assumptions of an especially intimate connection between the study of the heavens and the inquiry into the first principles of *all* reality. With the naturalization of its subject matter, astronomy's status as *the* antechamber of theology comes into question.[36] Whoever on the other hand remains within the tradition, expressed in *Metaph.* XII.8, that reveres astronomy as 'the branch of mathematics closest to [first] philosophy' (1073b4–5) and treats all the heavenly motions as a single system, must regard the planets' aloofness from sublunary nature (not to mention that of the fixed stars) as typical of the heavens in general, and must accept the implication which Theophrastus saw: that the

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31 This is vaguely suggested at *Epinomis* 982e and 977b.

32 For an example of how, when Aristotle is considering the sun along with moon, planets, and stars, he does not merely abstract from but seems to forget the former's sublunary effects, see *Cael.* II.12, where he raises and answers the question: Why is the complexity of the motions of sun, moon, and planets not proportionate to their distance from the first heaven with its single motion? His answer seems oblivious of the fact that if for example, complexly moving Mars or Venus were as close to the earth as the sun now is, the consequent seasonal and so on changes would almost certainly exhibit a more complicated pattern than the actual one, a pattern which we cannot take for granted would allow for anything like generation as we know it.

33 The 'or' = *vel*; 'in a special way' = in a way grounded in their specific kind, by contrast with one linking them directly with the first principle of everything.

34 Cf. 6a5–12, where he frames a similar speculation with the casual: 'there is no reason why the world should not include some beings of this kind'. The suggestion is not that the heavenly bodies stand in no relation to the divine, but that their movements are first to be explained naturalistically. In a similar fashion, Aristotle's comment that biological reproduction is a way of partaking in the eternal is additional to, not in competition with, his naturalistic account of it (*DA* II.4).

35 This remark applies to the moon too, insofar as it has sublunary effects.

36 Remember what Heraclitus said in the kitchen, *PA* I.5, 645a15–21.

physical influence of the so called 'first principles of everything' actually stops at the moon.[37, 38]

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[37] There is still a cognitive connection, but human intellect, which is affected by it, is not part of the natural universe: see *PA* I.1, 641a34–b10. Again, the aloofness (disconnectedness) of the heavenly bodies from the sublunary may be only physical; it is certainly not out of keeping with the *Timaeus* account to suppose reciprocal awareness between us and the stars and so on or their divinities. Cf. the Aster epigram ('You gaze at the stars…') ascribed to Plato.

[38] Thanks are due M. F. Burnyeat, Michael Frede, G. E. R. Lloyd, Marlein van Raalte, R. W. Sharples and Christian Wildberg for helpful comments on an earlier version.

Chapter 22

Protagoras' Great Speech and Plato's Defense of Athenian Democracy

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The early Platonic dialogues are a rich source of information about the sophists; but scholars have long wondered how colored this information is by Plato's perspective on them. Do these dialogues tell us more about Plato than about the characters he depicts in them? Should we read them as reliable historical documents or as examples of Platonic literature and philosophy? In this chapter I shall examine Protagoras' 'Great Speech' in Plato's *Protagoras* with some of these questions in mind. I shall begin by highlighting several features of its content; I shall then proceed to discuss its significance. I shall conclude by discussing the importance of the speech for Plato's philosophy.

1 The Great Speech

The Great Speech is a response to Socrates' challenge to Protagoras. Protagoras has promised the young Hippocrates that he will learn from him the art of politics (319a). Socrates contends that such an art cannot be taught. As evidence he cites two facts. First, the Athenians allow only expert testimony in the Assembly when they debate technical issues, but let anyone speak about matters involving management of the state (319b–d). Second, the leading statesmen see that their children are educated in many subjects, but not in this one (319d–320b).

Protagoras' reply is a rhetorical *tour de force* that stretches over eight Stephanus pages (320c–328d). At the outset, it seems, Protagoras is faced with a dilemma: he can argue that political virtue can be taught, and thereby criticize the practices of his Athenian hosts; or he can agree with Socrates that it cannot, thus effectively undermining his own educational project. Plato provides him with an elegant way between the horns of this dilemma.[1] The Great Speech is complex and intricately structured. It deals with four main themes: the nature of justice, the purpose of punishment, civic education, and the role of natural ability in the development of virtue. I shall focus on the first and third of these themes; I shall ignore the second entirely, and say only a bit about the fourth.

A Justice

The Great Speech begins with a myth about the origin of human society. In it, Protagoras distinguishes three sorts of attribute that contribute to the well-being of humans. The first is natural gift, the second is technical art, and the third is the political art, or justice. Initially, Epimetheus assigns various natural gifts to the animals, such as size, strength, speed, weapons

[1] Kerferd, 1953, p. 42; cf. Morrison, 1941, p. 7. For a somewhat different account of Protagoras' dilemma, see Guthrie, 1969, p. 65; Guthrie notes the 'astonishing skill' with which Protagoras defends his position.

of attack and defense (presumably teeth, claws, and the like), protective coverings such as thick hair and hide, and protective foot coverings such as hooves, but in the process he neglects humans. Thus, when Prometheus examines what his brother has done, he finds 'the other animals agreeably endowed with all things, but man naked, unshod, without a place to sleep and weaponless.' (321c4–6) The literal sense of this is that Epimetheus had not provided to humans any natural attributes needed for survival, but we may take the point of the story to be that the natural endowments of our species are insufficient for our 'salvation' (*σωτηρίαν*, c8), that is, our survival as a species.

To ensure this, Prometheus stole from Hephaestus and Athena the second sort of attribute needed for survival, 'technical knowledge and fire' (d1–2), but not the political art (d5). Protagoras depicts humans in this condition as 'sharing a divine portion' (322a3) and kinship with the gods, and therefore as worshiping them. He also describes them as developing the art of speech and inventing for themselves houses, clothing, shoes, beds, and the means of producing food (a5–8). Living apart from each other, they were devoured by beasts: they lacked the ability to make war on the beasts because they lacked the political art, of which the art of war is a part (a–b). When they came together in cities for protection, however, 'they were unjust to each other because they lacked the political art' (b7–8). So they returned to their life apart and were devoured again by beasts.

Thus Zeus, fearing for the survival of the species, asked Hermes to distribute the third sort of attribute needed for survival, 'shame and justice' (*αἰδῶ τε καὶ δίκην*, c2) to humans, in order that there might be order in cities and groups bound by friendship. Hermes then asked Zeus how he should give justice and shame to humans:

> 'Should I distribute them as the arts were distributed, one doctor being adequate for many individuals, and likewise for the other craftsmen; shall I assign shame and justice in this way among humans, or shall I distribute it to all?'
> 'To all,' said Zeus; 'let all partake of it. For there would never be cities if only a few partook of them as in the case of the other arts.' (c3–d3)

This difference in the manner of distribution of the arts is of the utmost importance for Protagoras' conception of justice. Though the attributes in both the second and third classes are arts (*technai*) and are repeatedly so called by Protagoras, and though both are distinguished in this respect from the natural attributes of the first class,[2] the arts in the second class are specialized, being confined to a few experts, whereas the political art, which consists in *aidôs* and *dikê*,[3] must be possessed by all. This difference in distribution marks the political art as a general art, not a specialized one; it is what we would call a 'liberal art,' in the sense in which we distinguish education in the liberal arts, which deal with subjects everyone must know in order to be a good citizen or an educated human being, from professional training.

This is not the first place in the dialogue in which this distinction has been made, nor will it be the last. In his initial description of his art, Protagoras criticized the teaching techniques of other sophists, and Hippias in particular, on the grounds that they offered specialized training instead of education in the art of household and city management (318d–319a). The distinction appears even earlier in the dialogue, in the conversation between Socrates and Hippocrates. Socrates elicits from Hippocrates the admissions that his aim in studying with that other Hippocrates, the doctor, would be to become a doctor, and his aim in studying with Polyclitus

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[2] Kerferd, 1953, pp. 42–3, makes it clear that people do not share in the arts 'by nature,' but rather by education; the mythic representation of this fact is their portrayal as gifts of the gods.

[3] Kerferd, 1953, p. 43, remarks, 'An attentive reading of the text from 322d5 to 323c8 shows that *Aidôs* and *Dikê* are for Protagoras the *same* as political virtue, and what Hermes brings to man is not the rudiments or materials for political virtue, but political virtue itself.'

or Phidias would be to become, like them, a sculptor (311b–c). Hippocrates blanches, however, at the analogous conclusion that his aim in studying with Protagoras would be to become a sophist (311d–312a), and Socrates offers him the suggestion that he might seek to study with Protagoras for the same reason he studied with the grammarian, the lyre instructor, and the gymnastics instructor: 'Each of these you learned not for professional training (ἐπὶ τέχνῃ), as though you were going to become a craftsman, but for the sake of liberal education (ἐπὶ παιδείᾳ), as befits a free and private individual.' (312b2–4) As Protagoras' claim for his own educational enterprise is the same as Socrates' suggestion, and involves the same distinction between liberal education and professional training, we have reason to think it is one Plato, as the author of this dialogue, wants us to take seriously. It would seem that, if one learns the political art from studying with Protagoras, one does not learn something esoteric, but acquires knowledge that is, to some degree, common to all. This appearance is confirmed in the discussion of education, to which I now turn.

B Education

The second major feature of the Great Speech is its account of education. Despite the suggestion of the myth that justice is given directly to humans by the gods, Protagoras argues that justice is acquired by instruction. One form of instruction is punishment, which according to Protagoras is inflicted on the wrongdoer with the aim of instilling virtue (324a–c). Conventional education also plays a role in the acquisition of justice; and between 325b and 326e Plato has Protagoras present a perceptive empirical account of the ways in which parents and the state do, contrary to Socrates' claim, attempt to teach their children virtue. Note again that the kind of education described is liberal, not technical.

There are, says Protagoras, five stages of education in virtue. The first begins at home:

> As soon as a child can understand what is said to him, nurse, mother, tutor, and the father himself vie with each other to make him as good as possible, instructing him through everything he does or says, pointing out: 'this is right and that is wrong, this honourable and that disgraceful, this holy, that impious: do this, don't do that.' (325d)

The next three stages occur in school, where the child receives instruction in literature, in music, and in physical training.

> Later on when they send the children to school, their instructions to the masters lay much more stress on good behaviour than on letters or music. The teachers take good care of this … they set the works of the good poets before them on their desks to read and make them learn them by heart, poems containing much admonition and many stories, eulogies, and panegyrics of the good men of old, so that the child may be inspired to imitate them and long to be like them.
>
> The music-masters by analogous methods instil self-control … familiarizing the minds of the children with … rhythms and melodies. By this means they become more civilized, more balanced, and better adjusted in themselves and more capable in whatever they say or do; for rhythm and harmonious adjustment are essential to the whole of human life.
>
> Over and above this, they are sent to a trainer, so that a good mind may have a good body to serve it, and no one be forced by physical weakness to play the coward in war or other ordeals. (325d–326c)

When the formal schooling of the child is finished, the state continues the teaching of virtue through law: 'the State compels them to learn the laws and use them as a pattern for their life, lest left to themselves they should drift aimlessly' (326c–d). 'After all,' he adds later (327b), 'it is to our advantage that our neighbor should be just and virtuous, and therefore everyone gladly talks about it to everyone else and instructs them in justice and the law.' With this account Protagoras challenges Socrates' claim that virtue cannot be taught:

> as it is you are spoilt, Socrates, in that all are teachers of virtue to the best of their ability, and so you think that no one is. In the same way if you asked who teaches the Greek language you would not find anyone … [I]f we can find someone only a little better than the others at advancing us on the road to virtue, we must be content. (327e–328b)

Protagoras claims to be just such a person himself: not a Socratic expert on virtue, but one who is 'rather better than anyone else at helping a man to acquire a good and noble character' (328b). I suspect that he sees his own course of instruction as the finishing touch on the process begun by parents and the state: a 'capstone seminar,' if you will, in the political art.[4]

C Difference in ability

There is a third area of disagreement between the Protagoras of our dialogue and Socrates, and I must touch on it briefly. Socrates' challenge to Protagoras had included the claim that excellent people such as Pericles did not instruct their own children in virtue. Presented as evidence for the claim was the fact that these children turned out badly from a moral standpoint. Protagoras offers a different explanation: unequal ability. If everyone had to learn to play the flute if the state were to survive, instead of the political art, not everyone would play equally well, and the sons of *virtuosi* might not play better than the sons of poor flautists. But even the worst citizens of a state have been instructed in virtue and are better companions than savages (326e–327e; cf. 351b, where Protagoras says that courage is due to nature as well as nurture).[5] For the Socrates of the early Platonic dialogues, such deviations from moral excellence are given a single explanation: ignorance. The Socratic assumption is that knowledge suffices to produce moral excellence, so that any differences in natural aptitude for moral education are in the end irrelevant.

2 The Significance of the Speech

This speech is, first of all, the best philosophical defense of democracy we have from the ancient world, with the possible exception of Pericles' funeral oration in Thucydides As Havelock states:

> Here is a reasoned defence of democratic process as it obtained in the mother of all democracies. Classical literature, Greek or Latin, is not replete with such utterances. Herodotus supplies the first, the funeral speech put into Pericles' mouth is perhaps the second; this is the third and, though the least readable of the three, in a theoretical sense it cuts deeper.[6]

The sense in which the speech defends democracy is straightforward. It defends the view that all human beings[7] are qualified by the possession of the political art, which is identified as the

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[4] On the continuity between sophistic education and the educational task of the grammarian, the music teacher, and the trainer, note Protagoras' claim at 316d–317b that several famous practitioners of these arts were sophists in disguise.

[5] And here we have a verifiable reference to the views of the historical Protagoras, who said, 'Teaching needs both nature and practice' (DK B 3).

[6] Havelock, 1957, p. 170. See also Roberts, 1994, p. 41.

[7] The ancient reader of the speech would no doubt never have thought that the 'all' to which Zeus asked Hermes to distribute justice might include women and slaves, and there is no reason to attribute such a view to the character in the dialogue who presents it. Still, the language of the speech is not restrictive, the author of the dialogue did advocate extending the mantle of political leadership to at least some women, and Protagoras' opponent in this dialogue does argue in the *Meno* (73a ff.) that virtue is the same in man and woman, young and old, slave and free.

virtue of justice, to participate in government, and the additional claim that this virtue can be taught to virtually anyone. It rejects the view that underpins aristocratic ideologies, that the political art is the possession of a favored few.

The speech is, second, a defense not only of democracy, but also of the Sophistic approach to education. It is no accident that the two defenses are found together, for the sophistic approach to education is ideally suited to democracy. When Protagoras attacks Socrates' view of education by claiming that everyone is a teacher of virtue, he defends the equality of human beings in that respect that is most relevant to democracy: the possession of the attributes needed to participate fully in government. In order for democracy to make sense the political art must be shared by all citizens. Protagoras in his myth pictures justice as shared in this way, and in his account of education he explains how this art can be widely transmitted.

Third, the speech is a defense of Athenian morality in its most sensible form. Since ancient times, the charge has been leveled against Athenian morality that it was opportunistic and success-oriented rather than principled. Some writers have gone further and portrayed Athenian morality as nihilistic (I take this to be the thrust of the Melian Dialogue in Thucydides). Among Socrates' interlocutors in the dialogues, Thrasymachus and Callicles best bring out this dark side of Athenian morality. Protagoras' position, as sketched above, is altogether more moderate in tone. Protagoras offers practical success in politics and domestic life (318e–319a) without the threat of destabilization either to the state or to the soul of the individual. His views would therefore have seemed more attractive to ordinary Athenians than the more radical positions of a Callicles or Thrasymachus.

Fourth, and most important for my purposes, the speech presents a direct challenge to two central features of Socratic moral philosophy: that virtue is a matter of expert knowledge, and that it can only be taught in the manner befitting such knowledge.[8] We can see Socrates' assumptions at work throughout the early dialogues, but perhaps most clearly at *Crito* 46b ff., where Socrates chides Crito for paying attention to what the ignorant many think about the justice of his escaping from prison. Instead, says Socrates, we should listen to the advice of the moral expert. As no moral expert is on the scene, Socrates and Crito then review their own past views on the question of justice. This review is thoroughly intellectualistic: it consists in the examination of the various premises that constitute Socrates' argument that it would be wrong to escape. There is no appeal to the authority of custom or public practice (though, interestingly, there is something akin to this in the speech of the Laws at the end of the dialogue).

The dichotomy between knowledge, which is a matter for experts, and opinion, which may be based on ignorance, is the basis of Socrates' attack on the teaching of rhetoric in the *Gorgias* (454c ff.). It is also the basis for Socrates' challenge to Protagoras to prove that virtue can be taught. Socrates' challenge amounts to the questions, 'Where are the experts in the political art?' and 'Why don't the Athenians consult them?' (Note the similarity between these questions and those Socrates asks Anytus at *Meno* 89e ff.) I noted above that in the Great Speech Plato provides Protagoras with an elegant path through between the horns of this dilemma. Protagoras agrees with Socrates that there are no experts in the political art, but denies that this implies that there are no teachers. Everyone is a teacher of virtue, to the best of his ability; and this is possible because virtue is not a matter of expert knowledge but of common knowledge, learned in the way one's native language is learned.[9]

Is Protagoras' alternative a viable one? It is difficult to answer this question, because the main points of the speech are not directly addressed in the remainder of the dialogue. Socrates

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[8] On the notion of expert knowledge, see Reeve, 1989, pp. 33–62, and Woodruff, 1987 and 1990.

[9] For a discussion of the significance of the difference between the Socratic and the Protagorean approach, see Roberts, 1994, pp. 73 and 83. (Roberts regards Plato as more single-mindedly antidemocratic than I do, as will become clear below.)

attacks a point made only in passing in the speech, and one that is of little importance to Protagoras' argument: the unity of virtue. The remainder of the dialogue is a series of arguments designed to show that all the virtues are forms of knowledge. These arguments are fallacious,[10] and Socrates does not succeed in showing that Protagoras is wrong, even on this point. But even if he had, it would not have made much, if any, difference to the position outlined above. 'Let all the virtues be subsumed under or incorporated into the political art,' Protagoras might say. 'Let this art be described as knowledge, just so long as it is not described as expert knowledge, and my points still stand.' The arguments about the unity of virtue are no doubt intended to show the need for careful philosophical analysis of the definitions of the virtues, such as only an expert can provide; but even if they were more successful than they in fact are, the need for careful definition by an expert would not in itself show that the virtues themselves were instances of expert knowledge; nor would it show that philosophical inquiry is the only means by which they can be learned. Thus, Protagoras' main claims survive to the end of the dialogue, if only by virtue of not being directly criticized.

The Great Speech, then, contains a powerful challenge to Socratic moral philosophy, a challenge that is not refuted in the dialogue. Why is such a challenge contained in the dialogue? Why is the Sophistic position not refuted? Why is the *Protagoras* in this respect so unlike the *Gorgias* and the first book of the *Republic*? To these questions I now turn.

3 The Character Protagoras and the Historical Protagoras

Before I offer my own answer to these questions, I want to set aside a possible answer: that the views contained in the Great Speech represent the views of the historical Protagoras, perhaps even views that he might have put forward at an actual, historical meeting between Socrates and himself, and that in the *Protagoras* Plato is just offering an historical account of that meeting. As I shall argue in the next section, I do not believe that Plato ever wrote dialogues with a primarily historical intent. Whatever the plausibility of my general viewpoint, however, there are additional reasons for doubting that Plato intended in this dialogue to present the reader with a reasonable facsimile of the historical Protagoras. We know few things about the historical Protagoras. We know that he claimed that 'teaching needs both nature and practice,' (DK B 3) a claim that is reflected in the speech's remarks on differential ability. We know that he professed agnosticism about the gods (B 4), a claim that is somewhat incongruous with the religious tone of the speech, especially its mythic part.[11] But most importantly, we know that the historical Protagoras was a relativist; Plato attests to this in the *Theaetetus* (161c; B 1).

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[10] Socrates' use of fallacious arguments in the *Protagoras* has long been a source of concern to scholars. See Adam and Adam, 1962, p. ix, and Shorey, 1933, pp. 127, 129. Vlastos, 1991, ch. 5, has argued that Socrates never intentionally uses fallacious arguments in serious conversation; but it is hard for me to see *Prt.* 350c–351b as anything other than a pretty accurate diagnosis of a fallacious Socratic argument. If *Socrates* did not propound the argument knowing it was a fallacy, *Plato* certainly knew he was putting a fallacious argument into Socrates' mouth. Cf. also Klosko, 1979, p. 136.

[11] This is at best a mild inconsistency, for one could easily claim that the mythic elements of the speech are but decoration for the purposes of presentation. Indeed, Protagoras says at 320c that it will be 'pleasanter' to use the form of a myth to present his view. Still, it is at least a bit puzzling that a philosopher putting forward doctrines intended to defend his life's work should so easily make use of a theological framework about which he is openly skeptical, and a framework, moreover, that makes it more difficult to make his points (he must say that certain skills are 'gifts of the gods' when he wants to say that they are in fact learned.) For various attempts to reconcile this inconsistency see Guthrie, 1969, p. 65 n. 2; Vlastos, 1956, pp. ix–x, n. 11.

The relativism of the historical Protagoras has caused all sorts of trouble for interpreters who have attempted to import it into our dialogue, and even into the Great Speech. The reason is that the account of justice defended by Protagoras in the dialogue is not relativistic. It does not tie justice to the views and practices of a particular city, much less of a particular individual. According to Protagoras, justice is an art, a political skill, part of which is the art of war, akin to respect for others, productive of civic order and friendship (322b–c). This account is universal and objective, as are his other remarks about justice.[12] As he develops his view in the pages of the dialogue following the Great Speech, it is clear that he holds, in common with Socrates, that justice is one of the parts of virtue, along with courage, temperance, wisdom, and holiness; they differ only on the relation of the parts to the whole (329c–330a). He has no difficulty agreeing with Socrates that justice is a thing (πρᾶγμα, 330c), and that it is related in some way to holiness. Neither in the Great Speech nor later in the dialogue does Protagoras treat justice or any of the other virtues as relativistic in nature. Protagorean relativism, much discussed in the *Theaetetus*, plays no role in this dialogue.[13]

Scholars have attempted to import relativism into Protagoras' position because they have sought to assimilate the views expressed there to those of the historical Protagoras. This has resulted in a misreading of Protagoras' position. Protagoras in this dialogue disagrees with Socrates over the kind of knowledge that justice is, not over the objectivity of that knowledge. This has led in turn to charges that Protagoras' speech is insincere.[14] The interpretive strain caused by this effort should lead us to question whether the assimilation is necessary. My own view is that it is not. Plato is not primarily attempting to represent the views of the historical Protagoras. Plato's portrait of Protagoras, both here and in the *Theaetetus*, is the most informative we have of this ancient sophist, and it is surely no accident that Plato chose Protagoras as the spokesman for this particular set of views. Plato puts these views into the mouth of Protagoras, I think, because he finds it appropriate that the greatest and most reasonable of the sophists offer the most reasonable defense Plato can devise of democracy. We must use caution, however, in attributing any particular doctrine defended by Protagoras in the dialogue to the historical Protagoras. The Protagoras I am concerned with, the only one we can in the end know much about, is the character in the dialogue.[15]

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[12] C. C. W. Taylor, 1991, pp. 100–1.

[13] Among those who find the doctrine of relativism in the Great Speech is A. E. Taylor, 1926, p. 251. Vlastos, 1956, p. xvi, recognizes that the doctrine of relativism does not appear in the dialogue, but thinks that 'Moral subjectivism … must be assumed by Protagoras and refuted by Socrates without being mentioned by either' (p. xvii). I do not find Vlastos' rationale for this conclusion persuasive. The elenchus is a method for eliciting the interlocutor's assumptions, not concealing them. The various attempts to interpret the content of Protagoras' position relativistically have been effectively refuted, in my judgment, by Kerferd, 1953, p. 45 and C. C. W. Taylor, 1991, pp. 100–3.

[14] Adkins, 1973, p. 12.

[15] Some scholars, including Guthrie, 1969, pp. 63–4, have argued that the content of Protagoras' speech is based on a lost work of the historical Protagoras, 'On the original state of things,' referred to in Diogenes Laertius 9.55. (See also C. C. W. Taylor, 1991, p. 78, and Kahn, 1991a.) For a dissenting view, see Havelock, 1957, and Shorey, 1933, p. 124; for a critical discussion of the historicist interpretation, see Stalley, 1995, pp. 3–7. Given the unreliability of Diogenes Laertius as an historian, it is at least as likely that this title was derived from the Great Speech as that the speech was derived from the lost work. Even if this were an actual work of the historical Protagoras, however, we have no way of knowing how much of its content was transferred to the *Protagoras*.

4 Plato's Purposes

If Plato's purposes in including the Great Speech in the *Protagoras* were not historical, what were they? Why did the ancient world's greatest philosophical critic of democracy include in this dialogue such a powerful defense of it? I do not believe that his aims were simply polemical. Protagoras' views are not just a target set up for Socrates to destroy. If they had been, we would have seen them destroyed in the dialogue. Instead, as I have noted, the main features of Protagoras' position in the Great Speech remain unrefuted at the dialogue's end. Plato was a critic of the sophists as well as of Athenian democracy, but he was not simply an anti-sophistic and anti-democratic polemicist.[16] What, then, was he?

The answer is obvious: Plato was a philosopher, and philosophy, for Plato, was dialectic. Plato in the dialogues is writing philosophy, not history, and gives characters the doctrines they need to make the most interesting defense of their position, whether those doctrines were actually held by their historical counterparts or not.[17] Plato offers us an account, if you will, not of what some historical figures actually thought or said, but of the philosophical significance of a view associated with those figures.[18] The general interpretive approach I take to the dialogues, and therefore to the positions attributed to Socrates and Protagoras, is anti-historicist. I agree with Charles Kahn[19] that the dialogues cannot be read as a record of the views either of the historical Socrates or of Plato. I would say the same of the views of Protagoras.

Plato often attributes to Socrates' interlocutors powerful objections to Socrates' views. These objections are not always satisfactorily answered in the dialogue in which they are raised. The conclusion of several early dialogues, including, I think, the *Protagoras*, is not just apparently but genuinely aporetic. I doubt that this worried Plato as much as it does some of his interpreters. As a philosopher, he was interested not simply in the construction of his own philosophy but also in the arguments both for and against it. I think that Plato intended his dialogues to be genuine intellectual encounters. I think that he was interested in the clash of rival positions, not just in the vanquishing of sophistic falsehood by Socratic truth. Moreover, as an Athenian citizen with an interest in politics, Plato had ample reason to be concerned with democracy as a form of government. Protagoras may be playing *advocatus diaboli* in Plato's eyes, but when he puts the Great Speech into a dialogue whose theme is education in virtue, he is admitting that this advocate has something of interest to say on the subject.

Why would the ancient world's greatest philosophical opponent of democracy and the sophists write this encomium to both? The answer, I think, lies in an understanding of Plato's overall project in the early and middle dialogues. Though I think that Plato was led to write his dialogues by reflection on the life and death of Socrates, I do not think that his aim was the

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[16] Havelock, 1957, p. 167.

[17] As Havelock, 1957, states, 'Plato was a philosopher, not an historian, and the standards governing the literary composition of his day gave wide latitude to the dramatic manipulation of historical figures' (p. 159).

[18] Havelock, 1957, makes a similar point when he states:

> No philosopher in his senses will take the trouble to report with historical fidelity views which intellectually he cannot accept. What he is committed to is a critical examination of them, which passes judgment by the light of his own system, and the judgment becomes part of the report (p. 165; cf. pp. 87–8).

Havelock's interpretive approach is similar to mine, but the lack of evidence for Protagoras' actual views makes any interpretation of the speech speculative.

[19] In a series of articles beginning in 1981 (see Bibliography for details) and now in a book (1996), Kahn has argued against the historicist approach to the dialogues, which treats them as an expression of either Plato's or Socrates' point of view.

memorialization of the historical Socrates. The early dialogues in particular are not historical sketches, but original works of philosophy. The figure of Socrates in these dialogues is of course inspired by the historical Socrates, but what he represents to Plato is philosophy, understood as a way of life. In the face of the Athenians' conviction and execution of Socrates, Plato undertook a defense of the Socratic way of life. The indifference or hostility of the Athenians to philosophy led Plato to reflect on the mindset of those who were opposed to the project of living philosophically. The dialogue form was ideally suited to the defense of philosophy against points of view unsympathetic to it. By showing Socrates failing time after time to convince his interlocutors that they should convert from their non-philosophical pursuits and adopt the philosophical life, Plato at once explains why Socrates was not appreciated by the Athenians and offers arguments in favor of philosophy to those who (unlike his interlocutors) are willing to give them a fair hearing.[20]

It is essential to this project that Socrates' interlocutors possess reasons for living in a non-philosophical way that are attractive, at least to them. Sometimes the interlocutors prove unsuitable, intellectually, for conversion to philosophy; but often it is the attachment of an otherwise able interlocutor to some non-philosophical good that makes him unable to convert. The practice of the elenchus in the early dialogues reflects, I think, the attempt of Plato to get at what is at the core of the belief-systems of Socrates' interlocutors. Nor can Plato simply set up straw men whose views can be easily refuted. Plato must instead bring out the deepest reasons that kept those who heard Socrates from converting to philosophy.

The *Protagoras*, as I understand it, is part of this general project. Though the specific issues that divide Socrates and Protagoras are the nature and teachability of virtue, the larger issue, which lies in the background of the dialogue, is whether it is necessary to live philosophically in order to live well. Socrates, as always in the early dialogues, argues for the necessity of living philosophically. His position is intellectualistic: in order to live well, that is virtuously, one must know the relation among the virtues. This in turn means that one must be able to define the virtues. Socrates argues for the view that the virtues are essentially one; but one might accept his intellectualist approach to the question how one ought to live without accepting his particular view on the nature of the virtues (as one might, presumably, accept his view of the unity of the virtues without accepting the necessity of defining the virtues for living the good life).

Protagoras takes a different line. There is a sense in which his position is intellectualistic: it is elaborately developed and defended by argument. It is for this reason that Protagoras presents such a challenge to Socrates' view. Unlike many interlocutors, Protagoras can offer an articulate exposition and defense of his position. In fact, Protagoras presents the most attractive alternative to Socrates' position found in the early dialogues. Protagoras' view is not, however, intellectualistic in the way that Socrates' is. Protagoras does not demand that each individual know the definition of the virtues in order to live virtuously. He does not insist that the happy life must be philosophical in character. The ordinary person, according to Protagoras, is capable of living well.

The philosophical life, as described in the early Platonic dialogues, is austere and demanding. It requires continual inquiry of the most rigorous sort. It appears to be achieved at the cost of social alienation: though Socrates has a core group of disciples, he is regarded by most people in his society as eccentric, to say the least. In Socrates' case, the ultimate consequence of this alienation was death. One might be convinced to follow such a path only if one knew two things: first, that it would lead to happiness, and second, that no other path to happiness was available.

This is where Protagoras comes in. Protagoras purports to offer just such an alternate path. Moreover, his defense of it is quite reasonable. Plato has given us, in this character, the most

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[20] I develop the rationale for this interpretive framework in my 1997.

plausible defense we find in the early dialogues for a non-philosophical life. It is not just that Protagoras appears confident, successful, and composed, with none of the bluster of Thrasymachus or the rude arrogance of Callicles; he has an articulate alternative to Socrates' position. I imagine that Plato asked himself, 'If the non-philosophical life *could* be defended, what would the best defense of that life be?' and I think that Protagoras' defense of democracy and democratic education constitutes that defense.[21] If Protagoras is right I need not, as Socrates requires, engage in rational examination of all my moral beliefs; I can instead relax and get on with my life, secure in the knowledge that my parents and fellow-citizens have brought me up with the right beliefs. For that reason, his view is a serious challenge to Socrates'.

Protagoras' specific response to Socrates' challenge lies in his rejection of the Socratic view that virtue is expert knowledge. This is of course connected with his general rejection of the need to live philosophically. Protagoras is able to escape Socrates' dilemma by questioning its underlying assumptions. In this he is unlike most of the speakers in the early dialogues. Note, however, that Protagoras' disagreement with Socrates is not complete. Both agree that virtue is knowledge, and that it can be taught. They disagree on the kind of knowledge it is (expert vs. common), the way it is taught (philosophical inquiry vs. instruction), and by whom it is taught (the moral expert vs. every citizen). I find Protagoras' notion of non-expert knowledge both a most attractive view and a powerful challenge to Socratic intellectualism. If we grant Protagoras his notion of non-expert knowledge, the plausibility of Socratic intellectualism is seriously damaged. If Socrates has an adequate answer to Protagoras, we do not see it in this dialogue. This makes one suspect, at least, that Plato wanted to raise in the reader's mind the possibility that Socrates' intellectualist picture of moral education was in need of supplement or revision.[22]

5 The Great Speech and the *Republic*

If what I have claimed so far is correct, the Great Speech is a philosophically serious attempt to defend Athenian democracy against the criticism of Socrates by articulating a notion of non-expert knowledge and teaching that undermines the basis of Socrates' anti-democratic stance, which is based on the view that knowledge (at any rate knowledge of virtue) is expertise. It may be that this defense of democracy is drawn from materials in works of Protagoras now lost to us. My speculation, however, is that Plato himself is responsible for most of the content of the speech.[23] Plato is the author of the speech, not in the trivial sense that he wrote down the words of the speech and included them in the dialogue, nor in the maximal sense that he invented the entire speech out of whole cloth, but in the sense that he took over some elements in the positions of the sophists, drew out their implications, and shaped them into a coherent and persuasive position.

Though this claim may seem at odds with traditional views about Plato's relation to the sophists, it results straightforwardly from regarding him as a writer and philosopher of genius, a dialectician who was capable of constructing the best case possible for his opponents, and a man who wished to justify philosophy by showing its superiority to other ways of life. Nothing I have said so far commits Plato to accepting Protagoras' position where that position differs

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[21] Shorey, 1933, calls the speech 'a monument of the fairness of Plato's mind' and states that 'The case of Protagoras is put in the most favorable light possible' (p. 124).

[22] Cf. Stalley, 1995, pp. 18–19.

[23] Shorey, 1933, writes: 'This "myth" is plainly the composition of Plato and not of Protagoras, otherwise Plato would owe to Protagoras the greater part of his own social and political philosophy. There is not the slightest possiblility that Protagoras or anyone but Plato could have composed it' (p. 124). See also Havelock, 1957, pp. 87–8.

from Socrates'. In this final section of this chapter, however, I shall argue that the views on justice and moral education expressed in the Great Speech had a positive effect on Plato's later thought.

In Plato's later political philosophy, specifically in the *Republic*, we find many features of Protagoras' account of justice and education incorporated into Plato's own position. First, consider the *Republic*'s conception of social justice. Like that of Protagoras, it is shared among all the classes. It is not, unlike the wisdom of the guardians, a kind of expertise (cf. *Prot.* 322c–d).[24] It is also like Protagoras' notion of justice in that it is essential for the survival of the state (323a; cf. *Rep.* IV.433b–d). Its essence is social cooperation among individuals who have different natural abilities and different capacities for moral education, as it was for Protagoras.[25]

Second, consider the Protagorean account of moral education. Here the parallels with the *Republic* are even more striking. The account of primary education in *Rep.* II–III is similar to Protagoras' account both in general outline and in detail.[26] Both accounts aim at making the citizenry virtuous; both use direct moral instruction rather than philosophical reflection as tools. Both attempt to achieve their aim through the study of poetry, though the poetry in Plato's case is rigorously censored. (Note the contrast with Socrates' harsh dismissal of the study of poetry at *Protagoras* 347c as suitable only for the wine-parties of second-rate people.) Both make use of non-cognitive as well as cognitive means to attain the desired result. Note in particular here Protagoras' mention of the use of musical education to produce rhythm and harmony in the soul, and the parallel from the *Republic*:

> The music-masters by analogous methods instil self-control … familiarizing the minds of the children with … rhythms and melodies. By this means they become more civilized, more balanced, and better adjusted in themselves and more capable in whatever they say or do; for rhythm and harmonious adjustment are essential to the whole of human life. (*Prt.* 326b)
>
> [M]ore than anything else rhythm and harmony find their way to the inmost soul and take strongest hold upon it, bringing with them and imparting grace, if one is rightly trained. . . (*R.* III.401d–e)[27]

There is a similar parallel between the two accounts of gymnastic training (*Prt.* 326b–c and *R.* III.403c–404b).

Protagoras claims at 326e–328a that the difference between people with respect to virtue is due to their different natural endowments. He also makes use of non-cognitive methods (including music and gymnastic) to instill virtue. This position makes sense only if virtue contains a non-

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[24] I disagree with those interpreters of the *Republic* like Williams, 1973, who think that the lower classes are essentially unjust, because they are ruled by spirit or appetite instead of reason. I think that Plato holds that, though such people *would be* unjust in any state but the Republic, they are made just in the Republic by their acceptance of the rule of reason, that is, of the guardians.

[25] Justice for Protagoras is shared unequally among the citizens of a state, owing to differences in natural ability (326e–328a). Likewise in the *Republic*, there are degrees of justice: the guardians are pre-eminently just, because of their rational powers; the auxiliaries, because of their capacity to retain just principles in their souls by true belief; and lastly the artisans, by virtue of their ability to abide by the edicts of the rulers.

[26] Stalley, 1995, writes: 'In books II and III he makes Socrates prescribe for the young guardians a scheme of training which is, in fact, simply a reformed version of the Athenian *paideia* described in the Protagoras speech' (p. 19). Likewise Havelock, 1957, who writes that 'Plato has made education so much his own subject, in the *Republic* and elsewhere, that [Protagoras' account] reads like his own description' (p. 179).

[27] Friedländer, 1964, writes: 'We note in particular the spiritual effects ascribed to musical training. Rhythm and harmony penetrate the soul and appease it; the goal of musical education is *eurhythmy* and integration … of the soul. This will be said again in the *Republic*, in almost the same words; *Republic* 400d, 401d, 410cd, 522a)' (p. 16).

cognitive element. That this was the view of the historical Protagoras we saw confirmed by his B 3, quoted above: 'Teaching requires both nature and practice.' That it is the view of Protagoras in this dialogue is confirmed not only by the passage cited in the Great Speech but by the concluding sentence in Protagoras' refutation of Socrates' first attempt to show that courage is knowledge: 'courage is a matter of nature and the proper nurture of the soul.' (351b).

Though scholars debate the limits of Socrates' intellectualism, the most common interpretation of his view in the *Protagoras* is that courage is purely a matter of the intellect: that knowledge is at least necessary and sufficient for, and perhaps identical to, courage. This view is at odds both with Protagoras' view and with the view defended by Socrates in the *Republic*. Courage there is a virtue of the auxiliary class; people are selected for membership in this class on the basis of their high spirit (II.374e–375b). When Plato divides the soul into three parts, the spirited part of the soul turns out to be different from the rational (IV.440e–441c). The courage of the auxiliaries is described as a quality of belief or faith, the preservation of conviction in the face of pain or pleasure, analogous to a dye, and not as knowledge (429b–430c). Courage in the individual turns out to be a virtue of the spirited, not the rational element (442c). Thus, courage in the *Republic* turns out to be something much closer to 'a matter of nature and the proper nurture of the soul' than to 'knowledge of good and evil.'[28]

There are limits to these parallels. One thing the citizens of the *Republic* do not do is to sit in common counsel on matters of public policy: that aspect of justice is still reserved for the guardians. And the guardians, of course, are given a kind of higher education that has its roots in Socratic intellectualism. By this higher education they are to acquire a kind of expertise, knowledge of the form of the Good, that entitles them to wield absolute power. Plato in the end is not a democrat. But in the *Republic* he incorporates a good deal of the Protagorean defense of Athenian democracy into the theory of justice and education in his own state.

It could be argued that the features of Protagoras' speech I have been emphasizing are simply common features of Athenian democracy and its system of education; but while that may be true of some of the content of the speech, such as the details of the educational program, I think it is emphatically not true of the framework into which Protagoras places that content. Not any Athenian could have defended democracy in the way Protagoras does here; it would take an intellectual of rare ability to discern the philosophical foundations of Athenian democracy. In my view, that intellectual was Plato; but even if the historical Protagoras did offer a defense of Athenian democracy along these lines, it was Plato who chose to write a dialogue in which these views came into dialectical conflict with those of Socrates. His motive for doing so, I have argued, was not to show that Athenian democracy was completely corrupt, but to make the best case he could for the anti-philosophical convictions of those citizens of Athens who were hostile or indifferent to Socrates' project. I believe that, either when he was constructing this case or some years later, when he wrote the *Republic*, Plato saw that the idea of a non-philosophical life was not without merit, and that he incorporated this idea into his more mature thought. Without abandoning the idea that the life devoted to philosophy was the best possible for a human being, he did abandon the Socratic claim of the *Apology* that 'the life without inquiry is not worth living for a man' (38a).

If the argument of this chapter is correct in outline, it shows that Plato was not the implacable opponent of the Sophists that some have imagined him to be. Because his method was to make the best case possible for his opponent, he was often able to find something of value even in views he rejected. At any rate, this is what I think happened in the *Protagoras*. Plato discovered that, if the philosophical life can be defended, it has to be defended in a more complex way

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[28] C. C. W. Taylor, 1991, generalizes this point: 'The whole educational programme of the *Republic*, moral and intellectual, consists of the development of natural talent through practice and systematic instruction' (p. 80).

than he had previously thought. He could no longer think of it as the only life worth living; he had to grant that other, more ordinary lives had some merit. (Thus the longer defense of the *Republic*.) He also had to grant that Athenian democracy had some merit. (Consider the remark in the *Seventh Letter*, 324d, that the Tyranny of the Thirty made the democracy that had preceded it look 'like an age of gold.') If I am right about the *Protagoras*, then Plato was more democratic, or perhaps less anti-democratic, than he has seemed.[29] The *Republic*, on my view, is not a polemic against Athenian democracy, but an attempt to incorporate what is sound in it into a new theory of justice. It is an exercise in *rapprochement*; and the first move in that exercise is the Great Speech in the *Protagoras*.[30]

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[29] My view contrasts sharply with that of Gregory Vlastos, (1983; 1991, p. 48), who held that Plato was anti-democratic, while Socrates was, if not democratic, at least 'demophilic.'

[30] This paper was read at the twenty-first University of Texas Ancient Philosophy Workshop in March, 1998. An earlier version was presented at the third annual Arizona Colloquium in Ancient Philosophy. I am grateful to many of the participants in these conferences for their questions and comments, and in particular Debra Nails, who served as my commentator in Arizona. I am sure that my critics will forgive me for generally sticking to my guns.

The 1998 Texas Workshop and the papers in this collection were intended to honor Alex Mourelatos. Alex was my dissertation director, and the person who, more than anyone else, taught me to be a scholar of ancient Greek philosophy. My early work shows the influence of Alex in many places, but in particular in my focus on metaphysical issues in Plato's middle and later dialogues and in the generally analytical approach I took to those issues. In the early 1980s I made what I thought was a decisive change of direction, leaving behind metaphysics and the later dialogues for the ethics of character and the early, Socratic dialogues. (I thought I was fleeing the nest; I wonder today if I didn't simply move for a time from the portion of it that was feathered by Alex to that feathered by Paul Woodruff.) An ancestor of this chapter was the first fruits of that move; I have been working on its successive incarnations intermittently ever since. As I make the final revisions to this chapter in December 2000, though, I have to report that I have renewed my interest in Platonic metaphysics and epistemology, via the study of one of Alex's main areas of expertise, Greek astronomy; and I found myself this past fall enjoying once more the study of an old love from graduate school, the *Timaeus*. I like to think it will amuse Alex to hear that. The acorn may roll around a bit, apparently, but never comes to rest very far from the tree.

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